



TITLE:

Studies in Indo-Iranian HistoricalLinguistics(Dissertation_全文)

AUTHOR(S):

Catt, Adam Alvah

CITATION:

Catt, Adam Alvah. Studies in Indo-Iranian HistoricalLinguistics. 京都大学
, 2014, 博士(文学)

ISSUE DATE:

2014-03-24

URL:

<https://doi.org/10.14989/doctor.k18000>

RIGHT:

Studies in Indo-Iranian Historical Linguistics

A thesis submitted by

Adam Alvah Catt

to the Department of Linguistics,
Kyoto University

in partial fulfillment of the requirements
for the degree of
Doctor of Philosophy
in the subject of Linguistics

Kyoto University
Kyoto, Japan

March 14, 2014

ABSTRACT

This dissertation combines five studies on topics in Indo-Iranian historical linguistics. A broad range of topics is covered, including the origin, derivation, and semantics of verbal and nominal forms, and discussion of the Vedic particle *u*. Throughout, I have attempted to treat problems in both a synchronic and diachronic manner, as I believe that these two perspectives are indispensable halves of any explanation in historical linguistics.

In Chapter One, “On the Rigvedic Optative *vidhéma* and the Root *vidh-*”, I discuss in detail the origin, forms, meaning, and syntax of the root *vidh-*. Thieme (1949) and later Hoffmann (1969) have proposed a widely-accepted etymology of the root *vidh-* in which they argue that this root was secondarily abstracted from certain root aorist forms of a different root *ví-dhā-* ‘distribute’. On the semantic side, based on the supposed connection with *ví-dhā-*, Thieme and Hoffmann believed that the root *vidh-* was originally synonymous with *ví-dhā-* ‘distribute’ and that it later underwent a semantic shift to ‘worship, honor’. I draw from multiple lines of evidence to show that Thieme and Hoffmann’s derivation of *vidh-* from certain forms of *ví-dhā-* must be abandoned. I argue that *vidh-* was not abstracted from *ví-dhā-* but that it existed as an independent root already in Proto-Indo-European. At least in Indo-Iranian, the root *vidh-* built only thematic aorists, and *vidhéma* is to be interpreted as such. Also, I show that the proposed original meaning ‘distribute’ with a later semantic shift to ‘honor’ for *vidh-* is illusory—these two apparent meanings simply reflect two optional syntactic structures available for certain verbs used in ritual contexts.

In Chapter Two, “A “Lost” *i*-stem: Pāli *piṭṭhi-* ‘back’”, I discuss the Pāli word *piṭṭhi-* ‘back’, which exists alongside an *a*-stem *piṭṭha-* n. ‘id.’ Pāli *piṭṭhi-* has been explained as derivable from Vedic *pr̥ṣṭi-* ‘rib (cage)’ (CDIAL). Although Pāli *piṭṭhi-* is not cited, Mayrhofer (EWAia II 165) points out that the Middle Indo-Aryan and Iranian forms showing an *i*-stem (Avestan *par̥šti*, Sogdian *prc(h)*) all have the meaning ‘back’ and are therefore better grouped with Vedic *pr̥ṣṭhá-* n. ‘back’. Vedic *pr̥ṣṭhá-* goes back to Proto-Indo-European **pr̥-sth₂-ó-* ‘hervor-stehend’ and the *i*-stem forms ultimately go back to **pr̥-sth₂-í-*. The derivational processes underlying the formation of these stems have not been fully explored. It would be preferable if we could relate them in a systematic fashion. Following the lead of Mayrhofer, I argue that Pāli *piṭṭhi-* and *piṭṭha-* (: Vedic *pr̥ṣṭhá-*) should be reconstructed as **pr̥-sth₂-í-* and **pr̥-sth₂-ó-*, where the *o*-stem functioned in Proto-Indo-European as an adjective ‘prominent’ and the *i*-stem as a feminine abstract ‘prominence’. This explanation is based on Schindler’s elucidation of the Sanskrit *cvi*-formation (Schindler 1980). Vedic and Pāli substantivized the *o*-stem, and the *i*-stem was later concretized in Pāli and Iranian. I also discuss the clear semantic and/or functional differences between the *a*-stem and *i*-stem forms in Pāli and Avestan.

In Chapter Three, “Root-final Consonant Variation: Av. *aēsma-* ‘firewood’ and *uruuād- ~ uruuāz-* ‘be joyful’ vs. Ved. *idhmá-* ‘firewood’ and *vrādh-*”, I discuss two cases in which forms in Avestan show variation in their root final consonant when compared to related forms in Vedic or Avestan. The first case involves the word for ‘firewood’ in Avestan and Vedic. The second case is the Avestan root *uruuād- ~ uruuāz-* ‘be joyful’ and the related Vedic root *vrādh-*. Based on the Caland system context and the *s*-stem derivatives built to the root **h₂eǵdʰ-* ‘kindle’, I argue that Avestan *aēsma-* and Vedic *idhmá-* are more closely related historically than they may appear at first glance. In the second half of the chapter, the root final consonant variation seen in Avestan *uruuād- ~ uruuāz-* is discussed in detail, and comparison with the related Vedic root *vrādh-* is presented. Although the root final *-z* in Avestan *uruuāz-* is usually considered to go back to an inchoative verbal suffix *-sa* (< Proto-Indo-European **-sk̑%*), I argue that it likely had its origin in nominal forms. The root underlying these forms can be set up for Proto-Indo-Iranian as **uraHdʰ-*, with a meaning ‘be/become joyful’. I demonstrate through careful philological discussion that this meaning was largely preserved in Avestan, while in Vedic it was distorted by association with the nearly homophonous root *vardh-* ‘grow, become strong’.

In Chapter Four, “Pāli *avajja-* and *vajja-*: A Study in Semantic Reanalysis”, I examine Pāli *vajja-* ‘sin’ and *avajja-* ‘sin’ ~ ‘non-sin’, focusing in particular on the curious semantics of *avajja-*. I show that although *avajja-* and *vajja-* are ultimately derived from different roots, due to their formal and

semantic similarity, *avajja-* in its simplex forms was reinterpreted within Pāli as ‘non-sin’, i.e. as an antonym of *vajja-*. The developments within Pāli can be explained by starting with only two forms—*avadyá-* ‘sin’ and *varjya-* ‘sin’. After undergoing regular consonant cluster assimilation, these two forms would respectively become *avajja-* and *vajja-* in Pāli. Because *avajja-* synchronically looked like a negated form of *vajja-*, *avajja-* in its simplex forms was reanalyzed as an antonym of *vajja-*, and it was no longer possible in Pāli to use *avajja-* in its original sense of ‘sin’—only *vajja-* could be used in this meaning. In the old compounds *an-avadyá-* ‘without sin’, *nir-avadya-* ‘id.’, and *sa-avadya-* ‘with sin’, however, the initial *a-* of *avadyá-* was not susceptible to semantic reanalysis as it was preceded by a semantically transparent morpheme. Thus *avajja-* in Pāli *anavajja-*, *niravajja-*, and *sāvajja-* corresponds in meaning to its Sanskrit counterpart *avadya-*. Taking parallel forms from Vedic, Ardha-Māgadhī, and Buddhist Hybrid Sanskrit into consideration, I show how the semantic reanalysis of *avajja-* occurred only in Pāli. Furthermore, I discuss the distribution of *vajja-* and *avajja-* in Pāli, showing that *avajja-* ‘non-sin’ occurs in the simplex only when it is contrasted with *vajja-*.

Chapter Five, “The Particle *u* in Vedic: Function and Etymology”, offers a new perspective on the Vedic enclitic particle *u*. Various proposals have been made about the function and etymology of the particle *u*. Klein (1978, 1985, 1988) proposes that there was a historical development in the usage of *u* and that this development can be divided into two consecutive stages in which the particle had two distinct functions: (1) anaphoric and (2) conjunctive. For the etymology, Klein connects Vedic *u* with the Proto-Indo-European distal deictic particle **u*. Dunkel (1997) proposes that Vedic *u* encompasses three functions—(1) conjunctive, (2) anaphoric, and (3) distal-deictic—the conjunctive and distal-deictic functions being equally old, and the anaphoric function representing an inner-Indic reinterpretation of the original conjunctive function.

Previous approaches to Vedic *u* have tended to overemphasize what kind of word serves as its host, using this as a basis for discerning the function of the particle. As it can be demonstrated that the particle has scope over its whole clause and not only the preceding word, approaches to Vedic *u* like Klein’s which seek to determine the particle’s function based on the element that precedes it are ill-founded. I argue that the enclitic particle *u* functions as a connector of clauses and that it is positioned in the syntax left-adjoined to its clause. However, clitics in Vedic must have a phonological host on their left. As *u* cannot surface *in situ*, the particle makes a minimal movement in the phonology to a position within its domain where it can be appropriately hosted (Hale 2007:204ff.). This cross-linguistically well-attested phenomenon is known as prosodic inversion (Halpern 1995). Klein has argued that *u* in its conjunctive function is a coordinate conjunction. Important evidence is adduced to demonstrate that this is incorrect. Additional details on possible cognates in other Indo-European languages are discussed, and I conclude that the particle *u* in the Rigveda functions primarily as a connector of clauses, and these clauses can be both dependent and independent.

本論「インド・イラン語の歴史言語学的研究」は、インド・イラン歴史言語学に関する五つの研究を包括的に複合させたものである。動詞や名詞の起源、派生および意味、さらにヴェーダ語の小辞 *u* の機能など、古代インド・イラン諸語における問題を幅広く扱っている。歴史言語学の分野においては、通時的な視点はもちろん共時的な視点も不可欠であり、本論ではこの二つの視点をバランスよく取り入れることを目標とした。

第一章「ヴェーダ語の動詞 *vidh-* とリグヴェーダにおける希求法の形式 *vidhéma* について」では、ヴェーダ語の動詞語根 *vidh-* の起源、形式、意味、統語構造および補充法的な関係について詳細に論じた。語根 *vidh-* の語源を最初に扱ったのは Thieme (1949:36f.) である。彼によると、*vidh-* は、動詞前辞 (preverb) と動詞語根を組み合わせた *ví-dhā-* 「分配する」の語根アオリストから二次的に形成された語根とされている。Thieme の説はその後 Hoffmann (1969) に継承され、現在も広く受け入れられている。

Hoffmann によると、一人称複数の希求法の形式 *vidhéma* は、リグヴェーダよりも前の段階 **ui-dʰáH-iH-ma* にさかのぼる。この形式は最終的に語根アオリスト希求法の形式である印欧祖語 **dʰéh₁-ih₁-me* にさかのぼる。古代ギリシア語の語根アオリスト希求法 *θεῖμεν* (< 印欧祖語 **dʰéh₁-ih₁-me*) などが示すように、標準階梯の語根 (**dʰéh₁-*) に希求法接尾辞のゼロ階梯 (**-ih₁-*) を付した希求法は、後期印欧祖語に再建可能である (Hoffmann 1969:5, 1968, Jasanoff 1991, 2009:49f.)。しかし、ヴェーダ語では、末尾に喉音のある語根から作られる語根アオリスト希求法は、*-eyā-* という音連続を持つようになった。たとえば、*stheyāma* 「立つ」← pre-Vedic **sthéma* < 印欧祖語 **stéh₂-ih₁-me* (ギリシア語 *σταῖμεν* を参照) はこのプロセスを反映している。Hoffmann は、語根アオリスト希求法 *vidhéma* (< **ui-dʰáH-iH-ma*) が通常予想される形式 **vidheyāma* にならなかった理由として、*vidhéma* が共時的に新しい語根 *vidh-* のテマティックアオリスト希求法、すなわち **uidʰ(H)-á-iH-ma* と再分析されたためと主張している。

また、アオリスト分詞 *vidhánt-* についても注目すべき点がある。ヴェーダ語において *-ā* で終わる語根 (本来末尾に喉音をもつ語根) は、アオリスト分詞を形成する場合、長母音を示す。たとえば、*pā-* 「飲む」のアオリスト分詞 *pánt-* や *sthā-* 「立つ」のアオリスト分詞 *sthánt-* などが挙げられる。したがって、*vidhánt-* が *ví-dhā-* から作られたとする Thieme と Hoffmann の説が正しければ、むしろ **vidhánt-* という形式が予想される。実際の形式 *vidhánt-* に観察される不規則な短い母音を説明するために、Hoffmann は *-ā* 以外の音で終わる語根アオリスト分詞が語根にゼロ階梯を示す点を指摘している。たとえば、*gm-ánt-* (*gam-* 「行く」の語根アオリスト分詞) や *kr-ánt-* (*kar-* 「する」の語根アオリスト分詞) などがこれに該当する。さらに、古アヴェスタ語 *dantō* (*dā-* 「する、置く」の語根アオリスト分詞) やギリシア語 *θεῖς, θέντος* が示すように、印欧祖語において喉音で終わる語根は通

常ゼロ階梯(**d^h_{h1}-ent-*)を示していたと考えられる(したがって、*pānt-*や*sthānt-*の長母音は二次的)。Hoffmann (1969:4f.)によると、*vidh-*が*vi-dhā-*からできたのはリグヴェーダよりも古く、この段階では**ui-d^hH-ánt-*のような語根にゼロ階梯を持った古いアオリスト分詞がまだ存在していたことになる。上の*vidhéma*の問題と同様に、古いアオリスト分詞**vi-dhánt-*が*pānt-*や*sthānt-*のように**vi-dhánt-*にならなかったのは、**vi-dhánt-*が共時的に新しい語根*vidh-*のテマティックアオリスト分詞として再分析されたからであるとHoffmannは説明している。

ThiemeとHoffmannの見解が正しければ、*vidhéma*と*vidhánt-*は、末尾に喉音を持つ語根から作られる語根アオリスト希求法および分詞の形式としてリグヴェーダより前の段階まで古い母音交替を保持していたことになる。したがって、*vidhéma*と*vidhánt-*は、インド・イラン祖語からヴェーダ語までの言語変化を示す重要なデータであるように見えるかもしれない。

これに対して論者は、韻律やアクセントなどの点に注目することで*vidhéma*と*vidhánt-*を*vi-dhā-*「分配する」の古い語根アオリストの形式と見なすThiemeとHoffmannの説を放棄しなければならないと主張し、さらにThiemeとHoffmannが主張した説を大幅に修正しなければならないことを示した。*vidh-*という語根はインド・イラン語派の中で、*vi-dhā-*から二次的にできたものではなく、印欧祖語の段階からすでに独立した語根として存在した。ラテン語*dividere*「分ける」およびトカラ語AB *wätk-*「分ける、決める、支配する」を*vidh-*の同源語として見なすならば、共通の語根が印欧祖語に再建されなければならない。印欧祖語には**h₁uid^h(h₁)-*「分ける、分配する」を再建し、この語根自体は、Lubotsky (1994:204)が提案したように、**dui-d^h(e)h₁-*「二つにする、分ける」、すなわち数詞の**dui-*「二つ」と語根**d^heh₁-*「置く、する」から成る複合語である。

アヴェスタ語とヴェーダ語のデータが示すように、*vidh-*はインド・イラン語派においてテマティックアオリストのみを形成し、したがって希求法*vidhéma*および分詞*vidhánt-*は共時的にも通時的にもテマティックアオリストの形式であり、古い語根アオリストの形式ではないと論者は結論付けた。

本章の最後では、リグヴェーダに見られる*vidh-*の意味、構文、そして*dās-*「奉仕する」との補充的關係を詳細に論じた。リグヴェーダにおいて、*vidh-*は主に以下の二通りの構文で使われる。

- (1) 与格(=受益者) + 具格(神に捧げる供物・讃歌など)
- (2) 与格(=受益者) + 対格(神に捧げる供物・讃歌など)

(1)の構文の方が圧倒的に使用例が多く、(2)の方は比較的めずらしい。Grassmann (1873:1280)などの辞書では、(1)の構文は「供物をもって(具格)神に(与格)敬意を払う」と訳され、(2)の構文は「供物を(対格)神に(与格)敬意を払いながら捧げる」と

訳される。Thieme は自説 (*vi-dhā*- 「分配する」) に基づいて、(2) のような構文に「供物を (対格) 神に (与格) 分配する (*verteilen*)」という意味を当て、これは近年多くの研究者の間で支持されている。対格が現れる (2) のような構文では、*vidh-* を「分配する」と訳すことは一見問題ないように見える。しかし、*saparya-* 「奉仕する」や *dās-* 「奉仕する」など *vidh-* と意味的に類似した動詞も、上の (1) と (2) と同じ構文で現れる。この観察に基づくと、(2) のような構文において *vidh-* を「分配する」と訳す必然性はなくなり、この点からも *vidh-* が *vi-dhā-* とは無関係であるものと結論付けることができる。

第二章「失われた *i*-語幹—パーリ語 *piṭṭhi-* 「背中」について—」では、パーリ語 *piṭṭhi-* 「背中」の語幹形成に焦点を当てた。中期インド・アーリア語の一つであるパーリ語には *piṭṭhi-* と *piṭṭha-* という語があり、ともに「背中」という意味をもつが、前者は *i*-語幹で、後者は *a*-語幹である。この点で、パーリ語 *piṭṭha-* はヴェーダ語 *pr̥sthá-* 「背中」とアヴェスタ語 *paršta-* 「楯、支え」と対応するが、パーリ語 *piṭṭhi-* と対応する形式はヴェーダ語に現われない。パーリ語 *piṭṭhi-* 「背中」はヴェーダ語 *pr̥stí-* 「肋骨、胸郭」に対応するという説があるが (CDIAL)、この説では「背中」と「肋骨」の意味の違いを説明できないという大きな問題点がある。Mayrhofer (EWAia II:165) は、パーリ語 *piṭṭhi-* と同じ *i*-語幹を持つ語はイラン系の言語にもある (アヴェスタ語 *paršti-*、ソグド語 *prc(h)* など) ことを指摘し、これらがすべて「背中」という意味を持つことから、パーリ語 *piṭṭhi-* はヴェーダ語 *pr̥stí-* 「肋骨、胸郭」ではなく、ヴェーダ語 *pr̥sthá-* 「背中」の同源語と見なすべきであると提案している。

ヴェーダ語 *pr̥sthá-* は印欧祖語の *o*-語幹形容詞 **pr̥-sth₂-ó-* 「前に立つ、突き出た」

(**pro-* 「前に」のゼロ階梯と動詞語根 **steh₂-* 「立つ」のゼロ階梯から形成された複合語) にさかのぼると考えられ (印欧祖語 **-o* は規則的にインド・イラン語で **-a* に変化)、特に動物の「背中」は「上に突き出した」顕著な身体部位として捉えられたと考えられる。パーリ語 *piṭṭhi-* とイラン諸語に見られる *i*-語幹の再建形として、Mayrhofer (同上) は *o*-語幹 **pr̥-sth₂-ó-* に対応する *i*-語幹 **pr̥-sth₂-í-* を再建している。この提案は理にかなったものであるが、*o*-語幹 **pr̥-sth₂-ó-* と *i*-語幹 **pr̥-sth₂-í-* の間の関係は説明されていない。

論者は、Mayrhofer と同様、パーリ語 *piṭṭhi-* と *piṭṭha-* の再建形 **pr̥-sth₂-í-* と **pr̥-sth₂-ó-* を想定し、*i*-語幹と *o*-語幹の二つの異なった語幹が、印欧祖語における名詞派生の一パターンを反映していると主張する。Schindler (1980) が明らかにしたように、*o*-語幹の形容詞から *i*-語幹の女性抽象名詞が派生されるパターンは印欧祖語における生産的なプロセスであった。以下の例はその派生プロセスを反映していると考えられる。

- a. ヴェーダ語 *jirá-* adj. 「生き生きとした」 に対して、*jirí-* f. 「生き生きと流れる水」
- b. ギリシア語 *ἄκρος* adj. 「最上の」 に対して、*ἄκρις* f. 「丘の頂上」
- c. 古教会スラブ語 *zŭlŭ* adj. 「悪い」 に対して、*zŭli* f. 「悪さ」

d. ラテン語 *rauius* adj. 「かすれた」 に対して、*rauis* f. 「かすれた状態」

pr₂-sth₂-ó-* と **pr₂-sth₂-í-* も上の派生パターンを反映していると考えるべきで、pr₂-sth₂-ó-* は本来形容詞「前に立つ、突き出た (prominent)」として機能し、**pr₂-sth₂-í-* はそれに対応する女性抽象名詞「突き出た状態 (prominence)」として機能していたと論者は考える。本来形容詞であった *o*-語幹は、インド・イラン語派で名詞化され、ヴェーダ語 *pr̥sthá-* 「背中」とパーリ語 *pit̥ṭha-* 「背中」になり、また本来女性抽象名詞であった *i*-語幹は具体名詞になり、アヴェスタ語 *par̥sti-* 「背中」とパーリ語 *pit̥ṭhi-* 「背中」になったと考えられる。

印欧祖語に **pr₂-sth₂-ó-/pr₂-sth₂-í-* を再建することで、インド・イラン語派の「背中」を意味する語だけでなく、バルト・スラブ語派において「指」を意味する語 (リトアニア語 *pīrštas*、ラトビア語 *pir(k)sts*、古プロシア語 *pirsten*、古教会スラブ語 *pr̥stŭ*)、そしてゲルマン語派において「棟、ridge of a roof」を意味する語 (古アイスランド語 *fyrst*、古高地ドイツ語 *first*、古英語 *first*) も統一的に説明することができる。バルト・スラブ語派に現れる形式は *o*-語幹 **pr₂-sth₂-ó-* 「前に立つ、突き出た」にさかのぼる。「指」という意味が示しているように、「突き出た」という意味は、インド・イラン語派に見られる「(上方に) 突き出た、(動物の) 背中」ではなく、「(身体の中心から) 突き出た、(手足の) 指」という興味深い捉えられ方を示している (意味的な平行例として、「手足の指」という意味で使われる英語 *extremities* を参照)。一方、ゲルマン語派に現れる形式はウムラウトを受けているので、*i*-語幹 **pr₂-sth₂-í-* 「突き出た状態」にさかのぼると考えられる。「棟、ridge of a roof」という意味から分かるように、インド・イラン語派と同じく「(上方に) 突き出た状態、(屋根の) 最も高い部分、棟」、つまり突き出た方向を上方に捉えていると考えられる。

Schindler (1980:390) が指摘したように、*o*-語幹の形容詞から *i*-語幹の抽象名詞を派生するプロセスは印欧祖語の段階で生産的だったが、数百年の間の言語変化を経て、多くの語派で次第に消えてしまったと考えられている。この派生プロセスが生産性を失ったために、通常どちらか一方の語幹しか分派諸言語に保持されていない。それにもかかわらず、パーリ語とアヴェスタ語では、「背中」を意味する語は両語幹を保持している。論者は詳しい調査を行ない、両言語における二つの語幹の保持の背景に、互いに異なる機能的・意味的な役割の変化があったと主張した。すなわち、パーリ語において、*pit̥ṭha-* はもっぱら後置詞として機能するのに対して、*pit̥ṭhi-* は主に身体部位「背中」を指す。アヴェスタ語においては、*par̥šta-* は「楯、支え」を意味し、*par̥sti-* は身体部位「背中」を指す。

第三章「語根末子音の揺れ—アヴェスタ語 *aēsma-* 「薪」と **ruuād- ~ ruuāz-* 「喜ぶ」およびヴェーダ語 *idhmá-* 「薪」と *vrādh-* について—」では、アヴェスタ語およびヴェーダ語の他の形式とは対照的に、アヴェスタ語において語根末子音が揺れを示す語を二つ取り上げる。最初の語は、アヴェスタ語およびヴェーダ語において「薪」を意味する語で、二つ

目は難解な語根であるアヴェスタ語 **ruuād- ~ *ruuāz-* 「喜ぶ」とその同源語であるヴェーダ語 *vrādh-* である。

アヴェスタ語 *aēsma-* 「薪」および ヴェーダ語 *idhmá-* 「薪」は、インド・イラン祖語の語根 **Hajdʰ-* 「点火する」 (< 印欧祖語 **h₂ejdʰ-*) に名詞接辞 *-ma* を付した形式であるが、接辞 *-ma* の前にアヴェスタ語が *-s-* を示しているのに対して、ヴェーダ語は *-dh-* を示している。ヴェーダ語にあるとされる *s*-語幹 *édhas-* 「薪」を手がかりに、Bartholomae (AiW 27, 1894-5:21) はインド・イラン祖語に **Hajdʰ-zʰ-ma-* (< 印欧祖語 **h₂ejdʰ-s-mo-*) を再建している。この再建形では、接辞 **-ma* は動詞語根 **Hajdʰ-* に直接付いているのではなく、*s*-語幹 **Hajdʰ-zʰ-* に付いている。Bartholomae の再建形は正確であるが、彼が言及したヴェーダ語の *s*-語幹 *édhas-* には大きな問題がある。論者の観察では、ヴェーダ語に *s*-語幹 *édhas-* は存在しない。インド・イラン祖語の再建形 **Hajdʰ-zʰ-ma-* の元となった *s*-語幹はむしろ印欧語のより古い段階に属するもので、それは次のような *s*-語幹派生の語に反映されている。

- a. **h₂ejdʰ-s-mo-* > アヴェスタ語 *aēsma-* 「薪」、リトアニア語 *iesmẽ ~ íesmė* 「一束の薪」
- b. **h₂ejdʰ-s-on-* > 古アイスランド語 *eisa* 「燃えさし」
- c. **h₂ejdʰ-s-to-* > 古英語 *āst* 「(ホップを乾燥させるための) 炉」
- d. **h₂ejdʰ-s-teh₂t-* > ラテン語 *aestās* 「夏」

ヴェーダ語 *idhmá-* m. 「薪」は、語根末が *-dh* であるという点と語根がゼロ階梯であるという点でアヴェスタ語 *aēsma-* m. 「薪」と異なる。だが、文法性、意味および使われる文脈に見られる共通性は、この二つの語には歴史的な近縁関係があったことを示唆する。アヴェスタ語 *aēsma-* と同様に、ヴェーダ語 *idhmá-* は接辞 *-ma* が直接語根に付された形式ではなく、*s*-語幹 **h₂idʰ-s-* に付された形式である。派生語を *s*-語幹から作る場合、その *s*-語幹は語根が標準階梯またはゼロ階梯を示すので、ヴェーダ語 *idhmá-* に現れるゼロ階梯とアヴェスタ語 *aēsma-* に現れる標準階梯は統一的に説明することができる。

第三章の後半では、アヴェスタ語 **ruuād- ~ *ruuāz-* 「喜ぶ」に見られる語根末子音の揺れとこれらと同源語であるヴェーダ語 *vrādh-* に焦点を当てた。Bartholomae (AiW 1544) 以来、アヴェスタ語 **ruuāz-* に見られる語根末の *-z* はインド・イラン祖語 **uraHdʰ-śca-*、つまり語根 **uraHdʰ-* に動詞接辞 *-sa* (< 印欧祖語 **-sḱ%*) を付した形式にさかのぼると考えられている。この見解には以下の二つの問題点がある。まず、接辞 *-sa* は通常語根のゼロ階梯に付されるので、**uraHdʰ-śca-* という再建形に現れる語根の標準階梯は変則的である。次に、同じ語根 **uraHdʰ-* から作られたと考えられるテマティック現在 **ruuāθan* がアヴェスタ語に在証されている点が挙げられる。Bartholomae の見解を受け入れると、テマティック現在語幹 **uraHdʰ-a-* の他に、接辞 *-sa* による現在語幹 **uraHdʰ-śca-* もアヴェスタ語に存在することになる。アヴェスタ語において、一つの語根からテマティック現在語幹

と接辞 *-sa* による現在語幹の両方を形成する例は他にない。したがって、Bartholomae の見解は容易には受け入れられない。

アヴェスタ語 **ruuāz-* に見られる語根末の *-z* は、動詞接辞 *-sa* によるものではなく、名詞・形容詞に見られる接辞の交替によるものであると論者は提案する。語根 **ruuād-* から作られた *s*-語幹は古アヴェスタ語 **ruuādah- n.* 「喜び」として在証され、また古アヴェスタ語には比較級形 **ruuādiiah-* 「より喜ばしい」および接辞 *-man* による抽象名詞 **ruuāz³man- n.* 「喜び」も在証されている。こうした語幹のヴァリエーションは、Caland system という接辞交替パターンに見られる典型的なものである。そこで、論者は **ruuāz³man-* に現れる *-z* に着目して、これは *s*-語幹に接辞 *-man* を付したものの、つまり **uraHd^h-z^hman- < *uraHd^h-s-man-* というプロセスを提案した。**uraHd^h-z^hman-* における語根末子音 **-d^h* は規則的な音変化によって脱落し、語根末子音 **-d^h* は共時的に見えなくなり、それゆえ語根は **ruuāz-* であると再分析された。

論者は当該の語根をインド・イラン祖語 **uraHd^h-* 「喜ぶ」として再建し、そして詳しい文献調査を行なった。「喜ぶ」というインド・イラン祖語の語根の意味がアヴェスタ語でほぼ保持されているのに対して、ヴェーダ語においてこの語根は別の語根 *vardh-* 「成長する、強くなる」と混同され、意味が大幅に変化したと結論付けた。

第四章「意味的な再解釈—パーリ語 *avajja-* と *vajja-* について—」では、パーリ語 *vajja-* 「罪」と *avajja-* 「罪、罪でない」の意味に着目した。通時的な観点から見ると、*avajja-* と *vajja-* は二つの異なった語根から作られたもので、形態的・意味的な類似から、本来「罪」の意味を持っていたパーリ語 *avajja-* は、単独語の場合 *vajja-* 「罪」の反義語「罪でない」として再解釈されたと論者は主張する。パーリ語の形式は、ヴェーダ語 *avadyá-* 「罪」とサンスクリット語 *varjya-* 「罪」から出発して、規則的な子音同化を受けて、*avajja-* と *vajja-* になった。共時的には、*avajja-* は *vajja-* の反義語（接頭辞の *a-* は否定を表す）として再解釈され、「罪」という本来の意味が「罪でない」に変わった。

しかし、興味深いことに、*avajja-* が複合語の二番目の要素に現れる場合、つまりパーリ語 *anavajja-* 「罪のない」、*niravajja-* 「罪のない」および *sāvajja-* 「罪のある」という複合語における場合、*avajja-* は本来の「罪」という意味を保持している。ヴェーダ語、中期インド・アーリア語であるアルダマーガディー語や仏教混淆サンスクリット語の同源語を調査した結果、*avajja-* が意味的に再解釈されたのはパーリ語においてのみである。また、パーリ語 *avajja-* と *vajja-* の分布に関して、*avajja-* 「罪でない」が単独で現れるのは *vajja-* と対照されている場合においてのみである。この分布を把握することで、Theragāthā 789 などの文献の解釈が明らかになる。

第五章「ヴェーダ語の小辞 *u* の機能と起源について」では、前接語であるヴェーダ語の小辞 *u* を取り上げ、新しい説明を試みた。ヴェーダ語の小辞 *u* の機能と起源については、様々な提案が出されてきた。Klein (1978, 1985, 1988) は小辞 *u* の機能を二つの通時的な

段階に分けて説明している。彼によると、小辞 *u* は、古い段階で前方照応 (anaphora) を標示する小辞で、より新しい段階では接続詞として機能するようになったとされる。起源について、Klein (1978:196ff.) は小辞 *u* を遠称ダイクシスを表す印欧祖語の小辞 **u* と関連付けている。これに対し、Dunkel (1997) は、ヴェーダ語の小辞 *u* には、(1) 接続詞 (2) 前方照応標示 (3) 遠称ダイクシスという三つの機能があると提案している。Dunkel によると、(1) と (3) は小辞 *u* の本来の機能で、(2) はより新しい段階でできた機能であるとされ、(2) はヴェーダ語内部で (1) 接続詞の用法から発達したものとされている。

ヴェーダ語の小辞 *u* は「文頭から二番目の位置」(Wackernagel position) に現れる。Klein などのこれまでの研究は、小辞 *u* の前に現れる語を分類することで *u* の機能を明らかにしようとしている。しかし、小辞 *u* は前の語だけでなく節全体にスコープがあるので、Klein のアプローチには大きな問題がある。そこで論者は、接続詞として使われる *utá* 「また」と小辞 *u* が同じような環境で現れる点などから、*u* は主に節をつなぐ接続詞 (connector) として機能し、統語論上節の左側に付加されると想定する。小辞 *u* は前接語であり、左側にホストを必要とする条件から、*u* は音韻論的に最小の位置に移動され、最終的に文頭から二番目の位置に現れる (Hale 2007:204ff.)。様々な言語に観察されるこの現象は prosodic inversion と呼ばれ (Halpern 1995)、ヴェーダ語の小辞 *u* を考える上で重要な理論的な枠組みであると論者は考えている。

接続詞としての機能について、Klein は小辞 *u* に等位接続詞としての機能しか認めていない。本章では、*u* が小辞 *ca* 「and」と一緒に現れる点や、独立節だけでなく従属節をつなぐ点などから、Klein の考え方を否定した。また、ヒッタイト語やギリシア語など古代印欧語における対応形を取り上げた。

TABLE OF CONTENTS

ACKNOWLEDGEMENTS.....	xiii
ABBREVIATIONS AND SYMBOLS.....	xiv
TRANSLITERATION CONVENTIONS.....	xv
PREFACE.....	xvii
CHAPTER ONE	
On the Rigvedic Optative <i>vidhéma</i> and the Root <i>vidh-</i>	1
1.1. Introduction.....	1
1.2. The root <i>vidh-</i> : forms, meaning syntax.....	2
1.3. Thieme and Hoffmann's treatment of the root <i>vidh-</i>	7
1.4. Critique of Thieme 1949 and Hoffmann 1969.....	9
1.4.1. Semantics and usage of the root <i>vidh-</i>	12
1.4.2. Syntactic characteristics of verbs used in ritual contexts.....	14
1.5. The origin of <i>vidh-</i>	17
1.6. Conclusion.....	20
Appendix to Chapter One: Construction types with <i>vidh-</i>	21
CHAPTER TWO	
A "Lost" <i>i</i> -stem: Pāli <i>piṭṭhi-</i> 'back'.....	24
2.1. Introduction.....	24
2.2. Previous approaches to Pā. <i>piṭṭhi-</i> 'back'.....	24
2.3. <i>*pr-sth₂-ó-</i> and <i>*pr-sth₂-í-</i>	26
2.4. Distinctions between the <i>a</i> -stem and <i>i</i> -stem for 'back' in Pāli and Avestan.....	29
2.5. Conclusion.....	32
CHAPTER THREE	
Root-final Consonant Variation: Av. <i>aēsma-</i> 'firewood' and <i>uruuād-</i> ~ <i>uruuāz-</i> 'be joyful' vs.	
Ved. <i>idhmá-</i> 'firewood' and <i>vrādh-</i>	34
3.0. Introduction.....	34
3.1. Av. <i>aēs-ma-</i> 'firewood' vs. Ved. <i>idh-má-</i> 'id'.....	34
3.1.1. 'Firewood' and the root <i>*h₂eǵdʰ-</i> 'kindle' in Avestan and Iranian.....	34
3.1.2. <i>*h₂eǵdʰ-</i> 'kindle' in Vedic.....	36
3.1.3. <i>*h₂eǵdʰ-</i> 'kindle' and the Caland system.....	36
3.1.4. Problems with the alleged <i>s</i> -stems to <i>*h₂eǵdʰ-</i> 'kindle'.....	37
3.1.5. An older layer of <i>s</i> -stems to <i>*h₂eǵdʰ-</i> 'kindle'.....	39
3.1.6. YAv. <i>aēsma-</i> vs. Ved. <i>idhmá-</i>	39
3.1.7. The derivational histories of YAv. <i>aēsma-</i> and Ved. <i>idhmá-</i>	40
3.1.8. Summary.....	41
3.2. Ved. <i>vrādh-</i> vs. Av. <i>uruuād-</i> ~ <i>uruuāz-</i>	42
3.2.1. Av. <i>uruuād-</i> ~ <i>uruuāz-</i>	42
3.2.1.1. Attested forms of <i>uruuād-</i> and <i>uruuāz-</i>	43

3.2.1.1.1. The manuscript variants <i>uruuāṭən</i> and <i>uruuāsən</i>	44
3.2.1.2. Distribution of Av. <i>uruuād-</i> ~ <i>uruuāz-</i>	45
3.2.1.3. Traces of Caland system behavior.....	45
3.2.1.3.1. <i>uruuāḍiiah-</i> and <i>uruuāzišta-</i>	45
3.2.1.3.2. Interpretation of <i>uruuāz^aman-</i>	46
3.2.1.4. Approaches to explaining the -z of <i>uruuāz-</i>	46
3.2.2. <i>vrādh-</i> in Vedic.....	49
3.2.3. <i>*uraHd^h-</i> in Proto-Indo-Iranian.....	52
Appendix to Chapter Three: Avestan and Vedic Passages.....	54

CHAPTER FOUR

Pāli <i>avajja-</i> and <i>vajja-</i> : A Study in Semantic Reanalysis.....	61
4.1. Introduction.....	61
4.2. <i>vajja-</i> and <i>avajja-</i> in context.....	61
4.2.1. <i>vajja-</i> ‘sin’.....	61
4.2.2. <i>avajja-</i> ‘sin’.....	62
4.2.3. <i>avajja-</i> ‘non-sin’.....	63
4.3. The prehistory of Pāli <i>vajja-</i> and <i>avajja-</i>	64
4.3.1. Etymology of <i>vajja-</i> ‘sin’.....	64
4.3.2. Etymology of <i>avajja-</i> ‘sin’ ~ ‘non-sin’.....	64
4.4. <i>avajja-</i> and <i>vajja-</i> in Ardha-Māgadhi.....	67
4.5. Buddhist Hybrid Sanskrit.....	67
4.6. Old collocations.....	68
4.7. On the interpretation of Theragāthā stanza 789.....	69
4.8. Conclusion.....	69

CHAPTER FIVE

The Particle <i>u</i> in Vedic: Function and Etymology.....	71
5.1. Introduction.....	71
5.2. Previous proposals on Vedic <i>u</i>	72
5.2.1. Klein’s proposal.....	72
5.2.2. Dunkel’s proposal.....	74
5.3. Critique of Klein and Dunkel’s proposals.....	75
5.3.1. Syntactic and prosodic factors.....	76
5.3.2. Scope.....	78
5.3.3. Other problems.....	78
5.3.4. Etymology of Vedic <i>u</i>	80
5.4. Conclusion.....	81

CHAPTER SIX

Summary of Findings.....	83
REFERENCES.....	90

ACKNOWLEDGEMENTS

I owe a great debt of gratitude to my teacher and advisor, Kazuhiko Yoshida, for many hours spent teaching me the ropes of Indo-European, not only in classes on Hittite, Old Irish, phonology, and morphology, but also in being a model for how to successfully interact with the international community of scholars in this field. I am also grateful to Yutaka Yoshida for teaching me so much about the Iranian languages and always being so generous with his time and knowledge. Yukinori Takubo also deserves special thanks for his critical comments throughout the program which have prompted me to be a better thinker and scholar. I am enormously indebted to my teacher, Werner Knobl, for first inspiring me to study Indo-European and for many years of passionate discussions about all things Vedic. My colleagues at Kyoto University also deserve special thanks for their support and comradery—although I will never reach the heights of their brilliance, I am able to go much higher when I at least flail my arms and try. My greatest personal debt is to my parents for supporting a fiercely independent son like me, and to my wife Kaori and daughter Emma, who have brought immeasurable joy into my life.

1. Abbreviations and symbols

See References for abbreviations of secondary literature.

1.1. Language, text, and author abbreviations

AMg.	Ardhamāgadhi	P.	Pursišnīhā
Aog.	Aogāmadaēca	Pā.	Pāli
AV	Atharvaveda	PGmc.	Proto-Germanic
Av.	Avestan	PIE	Proto-Indo-European
BHS	Buddhist Hybrid Sanskrit	PIIr.	Proto-Indo-Iranian
Ep.	Epic Sanskrit	PIt.	Proto-Italic
FrD.	Fragment Darmesteter	PTS	Pāli Text Society
Gk.	Greek	RV	Rigveda
Khot.	Khotanese	Skt.	Sanskrit
Khwar.	Khwarezmian (Choresmian)	Sogd.	Sogdian
KS	Kāṭhaka-Saṁhitā	SV	Sāmaveda
Latv.	Latvian	ŚB	Śatapatha-Brāhmaṇa
Lith.	Lithuanian	TS	Taittirīya-Saṁhitā
MP	Middle Persian	Up.	Upaniṣad(s)
MS	Maitrāyanī-Saṁhitā	Y.	Yasna
N.	Nīrangistān	Yaghn.	Yaghnobi
OAv.	Old(er) Avestan	YAv.	Young(er) Avestan
OCS	Old Church Slavonic	Yt.	Yašt
OE	Old English	V.	Vidēvdād (Vendidad)
OHG	Old High German	Ved.	Vedic
ON	Old Norse	VS	Vājasaneyi-Saṁhitā
OPr.	Old Prussian	Vyt.	Vištāsp yašt
OYAv.	Old and Young Avestan		

1.2. Linguistic abbreviations

In the main text, abbreviations are given in lower case followed by a period (ex. abl.); in glosses they are given in small caps with no final period (ex. ABL).

abl	ablative	loc	locative
acc	accusative	m	masculine
act	active	mid	middle
aor	aorist	n	neuter
dat	dative	nom	nominative
du	dual	obl	oblique
f	feminine	pcle	particle
gen	genitive	pl	plural
grd	gerund	pr	present
grdv	gerundive	prec	precative
impf	imperfect	pvb	preverb
ind	indicative	sg	singular
inf	infinitive	subj	subjunctive
inj	injunctive	voc	vocative
ins	instrumental	1/2/3	first-/second-/third-person

1.3. Symbols

>	becomes by regular phonological/chronological development
<	derives from by regular phonological/chronological development
→	becomes by a synchronic process
←	derives from by a synchronic process
	indicates end of line in a stanza
	indicates end of stanza
*X	reconstructed item of a proto-stage
X°	X = first member of compound
°X	X = final member of compound
X_	sandhi between X and the following item has been resolved for the sake of clarity/glossing
+X	marks an emended form
V	any vowel
C	any consonant
H	any laryngeal
V.CV	the period marks a syllable division
V-CV	the hyphen marks a morpheme boundary

TRANSLITERATION OF VEDIC

Accent: Vedic has a pitch-based accent system with three distinctions: low (*anudātta*), high (*udātta*), and falling/circumflex (*svarita*). In most cases only the high accent, indicated in transliteration with an acute sign over the vowel, is marked; however, falling accent, indicated with a grave sign over the vowel, is also sometimes marked. Note that finite verbs in main clauses are

unaccented unless they appear at the beginning of a clause while finite verbs in subordinate clauses are accented. Vocatives in non-clause-initial position and enclitics are also unaccented.

Notation of nasals: In general, I follow the transliteration principles in Hoffmann 1976:655 n. 1. The sign *m̃* is used for the nasal /m/ before *r, ś, ṣ, s, h*, and in sandhi forms where *-ām̃* replaces *-ān*. For /m/ before consonants other than *r, ś, ṣ, s, h*, I use *ṃ* before all non-labial plosives and before the glides *y* and *v*. *m* is written for /m/ before labial plosives. On the phonetic realization of these nasals, see recently Cardona 2013.

Meter and metrical restoration: In its written form, the text of the RV was superficially altered by the mechanical application of the strict phonotactic rules (*sandhi*) of later Classical Sanskrit. For example, Vedic commonly allows vowel hiatus while this is strictly avoided in Classical Sanskrit. The RV is composed in a variety of meters, and the majority involve some combination of 8-, 11-, or 12-syllable lines. Fortunately, the rhythm of short and long syllables in a line is rather fixed and allows us to restore the original form of most lines despite later alterations. Letters placed in subscript (*ₐvidhat*, *ₜᵤvám*, etc.) are used to restore the line to its original form. I largely follow the metrically restored form of the text proposed in van Nooten & Holland 1994.

Vowels: *e* and *o* are long vowels resulting from the combination of *a/ā + i/ī* and *a/ā + u/ū*, respectively. Long vowels are usually scanned as short before a following vowel.

TRANSLITERATION OF AVESTAN

I follow the system used in Hoffmann & Forssman 2004. Accordingly, epenthetic and anaptyctic vowels are notated in superscript (*vidāi^{tī}*, *ruuaē^{sē}*, *ḡdrōi*, etc.). These vowels are written in the actual manuscripts, where *i* and *u* indicate palatalization and labialization of the following consonant, and anaptyctic vowels are inserted to break up consonant clusters. Note that these vowels are not counted for metrical purposes.

Note that while all three grammatical numbers (singular, dual, plural) are marked in glosses for finite verbs, only dual and plural are indicated for other forms (i.e., singular forms are not explicitly glossed with -SG). Unless otherwise indicated, translations are by the author.

PREFACE

This dissertation is a representative sample of topics that I have been working on since enrolling in Kyoto University in April 2009. It presents the results of my research on various topics in Indo-Iranian historical linguistics and includes in-depth discussion of particles and the etymology, morphology, and semantics of verbal and nominal forms. As is evident, this dissertation is centered around the oldest Indo-Iranian languages—Vedic Sanskrit and Avestan—but readers will also note my interest in the Middle Indo-Aryan language Pāli and how the evidence of this language can be evaluated against the backdrop of its Indo-Iranian ancestors.

Considerable progress has been made over the last few decades with regard to our understanding of Proto-Indo-European. Hittite and Tocharian have contributed invaluable evidence that has changed our conception of the verbal system and gender. Our knowledge about the various ablaut patterns for nouns and adjectives, along with the complex derivational relationships between them, has greatly increased. Although many details remain unclear, our understanding has reached a stage at which we can better constrain our hypotheses, allowing for critical reevaluation of older theories and more rigorous evaluation of the validity of newer theories. This theoretical rigor has also been greatly augmented by insights from theoretical linguistics, typology, and more accurate conceptions of language change, as Indo-Europeanists of my generation in particular are eager to draw from this great source of knowledge that has been generated. While I am not concerned here with evaluating the merits of a particular theory, I hope to have shown in some parts of this dissertation how theory can help us better understand archaic linguistic data. Readers will note my reliance on the work of Jochem Schindler and the Caland system when discussing derivational patterns and my incorporation of Aaron Halpern and Mark Hale's work on clitics when discussing Vedic particles.

Adam Catt

Kyoto, Japan
March 14, 2014

CHAPTER ONE

On the Rigvedic Optative *vidhéma* and the Root *vidh-*

1.1. Introduction

As recognized by many scholars, the 1pl. optative form *vidhéma* found in the RV may offer important clues about how root aorist optatives were formed in PIE and Pre-Vedic to laryngeal final roots. In synchronic terms, *vidhéma* is a thematic aorist optative built to the root *vidh-*, which is commonly translated ‘worship, honor’. Thieme (1949:36f.) proposed a widely-accepted etymology of the root *vidh-* in which he argued that this root was secondarily abstracted from certain root aorist forms of a different root *ví-dhā-* ‘distribute’ (the root *dhā-* ‘place’ + the preverb *ví* ‘apart’). According to Thieme’s scenario, certain root aorist forms of *ví-dhā-* were mistakenly reanalyzed as thematic aorist forms of a new root *vidh-*. On the semantic side, Thieme believed, based on his etymology, that the root *vidh-* was originally synonymous with *ví-dhā-* ‘distribute’ and that it later underwent a semantic shift to ‘worship, honor’. Thieme’s arguments were later supported and expanded upon by Hoffmann (1969), who argued that *vidhéma* in origin was an archaic root aorist optative of *ví-dhā-* and not a thematic aorist optative of *vidh-*.

In this chapter, I will draw from multiple lines of evidence to show that Thieme and Hoffmann’s derivation of *vidh-* from certain forms of *ví-dhā-* must be abandoned. I will argue that *vidh-* was not abstracted from *ví-dhā-* but that it existed as an independent root already in PIE. At least in Indo-Iranian, the root *vidh-* built only thematic aorists,¹ and *vidhéma* is to be interpreted as such. Also, I will show that the proposed original meaning ‘distribute’ with a later semantic shift to ‘honor’ for *vidh-* is illusory—these two apparent meanings simply reflect two optional syntactic structures available for certain verbs (e.g., *saparya-* ‘worship/honor’ and *dāś-* ‘id.’) used in ritual contexts.

¹ A secondary nasal infix thematic present stem *vindha-* appears three times in the RV: *vindhe* (1x), *vindháte* (2x). This present stem was apparently modelled after *ávidat* ‘find’ (aor.) : *vindati* (pres.); cf. Hoffmann 1969. Due to the clearly secondary nature of this stem, it will be left out of the following discussion.

1.2. The root *vidh-*: forms, meaning, and syntax

The root *vidh-*² in the RV is attested exclusively as a thematic aorist stem *vidh-a-* to which are built the following modal and participle forms:

- a. indicative: *ávidhat* [3sg.act.] (10x)
- b. injunctive: *vidhat* [3sg.act.] (1x), *vidhán* [3pl.act.] (1x), *vidhanta* [3pl.mid.] (1x)
- c. subjunctive: *vidhāti* [3sg.act.] (1x)
- d. optative: *vidhéma* [1pl.act.] (21x), *vidhemahi* [1pl.mid.] (1x)
- e. participle: *vidhánt-* (30x)

Note the frequency of the 1pl. act. optative *vidhéma* and the participle *vidhánt-*.³ The optative forms *vidhéma* and *vidhemahi*⁴ appear only in main clauses, and *vidhéma* gets its accent from the fact that it stands at the beginning of the metrical line.⁵ All attestations of *ávidhat* are accented as they appear only in subordinate clauses.

Interpretations of *vidh-* in earlier dictionaries and translations include: ‘den Göttern (dat.) dienen, Ehre erweisen; sich hingeben; dienend/ehrend hingeben, widmen (mit acc.)’ (PW 1070); ‘einem Gotte (dat.) huldigen, dienen (mit oder ohne ins.); verehren; ehren (acc. mit ins.); jemandem (dat.) etwas (acc.) huldigend hingeben, weihen, widmen; hold sein (von

² In older grammars, *vidh-* was mistakenly classified as a class VI (*tudāti*) present; see Hoffmann 1969:3 for details. As *vidh-* builds a corresponding nasal infix present *vindh-* and due to its suppletive relationship with present and perfect forms of *dāś-* (García-Ramón 2004), the status of *vidh-* as an aorist is certain. Indicative forms of *vidh-* also have clear past/relative past time reference in the RV. In the Dhātupāṭha (VI 36) *vidh-* is likewise classified as a class VI present.

³ Hoffmann (1969:5) appears to attach importance to the frequency of these two forms because, according to him, they represent archaic optative and participle forms built to *vī-dhā-*: “Gerade die am häufigsten belegten Formen von *vidh* können also tatsächlich noch Formen des Wurzel-aorists von *vī-dhā* fortsetzen.” Jamison (1999:169) also follows a similar line of reasoning: “... let us provisionally accept his [Hoffmann’s] analysis of the reinterpretation [of *vidh-* from *vī-dhā-*], which I find compelling because of the distribution of forms in the paradigm.” I see no reason to attach special significance to the frequency of the optative and participle forms of *vidh-*. Due to the ritualistic nature of the RV text—where sacrificers declare their wishes to the gods—it should come as no surprise that 1pl. optative forms are attested with greater frequency. The frequency of the participle may be explained by the fact that it often means ‘sacrificer’.

⁴ The anomalous middle voice of *vidhemahi* (RV 8.19.16d) is most likely due to metrical considerations; similarly for *vanemahi* (RV 7.94.9c). For a different treatment, see Hoffmann 1969:5f.

⁵ Finite verbs are typically unaccented unless they occur in line-initial position or in subordinate clauses.

Göttern)’ (*Grassmann* 1280); ‘recht machen, willfährig sein, aufwarten, dienen, huldigen, weihen, verehren’ (Geldner’s trsl.).

As the interpretations in the paragraph above reveal, *vidh-* can appear in various syntactic constructions.⁶ In the majority of passages, the root *vidh-* appears in the following construction: optional nominative subject (usually mortals) + dative of the recipient (always a divine or semi-divine being/entity) + instrumental of the offering (songs of praise, oblations, etc. to divine beings). See examples (1) and (2) below:

(1) (RV 2.6.2a)

ayā te agne vidhem_a
 this-INS you-DAT Agni-VOC honor-AOR.OPT.1PL
 ‘With this (firewood) may we honor you, Agni (the fire god).’

(2) (RV 2.26.4a)

yó asmai havyáir ... ávidhat
 who-NOM him-DAT oblations-INS.PL honor-AOR.IND.3SG
 ‘[He] who has honored him (the divine being Brahmanaspati) with oblations ...’

In eight passages, *vidh-* appears only with a dative of the recipient. See (3) and (4) below:

(3) (RV 1.36.2b)

haviṣmanto vidhema te
 with.oblations-NOM.PL honor-AOR.OPT.1PL you-DAT
 ‘With oblations may we honor you (=Agni).’

(4) (RV 1.136.5a)

yó mitrāya váruṇāya_ ávidhaj jáno
 who-NOM Mitra-DAT Varuṇa-DAT honor-AOR.IND.3SG man-NOM
 ‘The man who has honored Mitra and Varuṇa ...’

In at least two passages,⁷ an accusative of the object offered appears in the dative + instrumental construction shown above. See (5) and (6) below:

⁶ See especially Renou (*EVP* 12:79) and García-Ramón (2004) for details on the employment of *vidh-*. García-Ramón (2004) must be used with caution, however, as there are several inaccuracies.

⁷ RV 6.1.10ab may also belong in this group if *máhi* is to be interpreted as a nominal ‘greatness’ rather than as an adverb ‘greatly’; see Bodewitz 2008:92.

(5) (RV 8.23.21ab)

yó asmai havyádātibhir |
 who-NOM him-DAT sacrificial.gifts-INS.PL
āhutim márto avidhat |
 oblation-ACC mortal-NOM offer-AOR.IND.3SG

‘The mortal who has offered an oblation to him (the fire god Agni) with sacrificial gifts ...’

(6) (RV 8.96.8d)

śúṣmaṃ ta enā havīṣā vidhema
 impetuousness-ACC you-DAT⁸ this-INS oblation-INS offer-AOR.OPT.1PL

‘May we offer impetuousness to you (Indra) with this oblation.’

In at least four passages (RV 1.189.1d, 3.3.1b, 8.61.9d, 9.114.1d),⁹ we find a dative of the recipient + accusative of the offering construction. One such example is quoted in (7) below:

(7) (RV 1.189.1d)

bhūyīṣṭhāṃ te námaūktiṃ vidhema
 most.abundant-ACC you-DAT praise-ACC offer-AOR.OPT.1PL

‘May we offer most abundant praise to you (Agni).’

In all of the constructions given above, *vidh-* is construed with a dative of the recipient. The object offered need not be mentioned explicitly. When it is mentioned, it appears in either the accusative or instrumental, although the construction with the instrumental is more frequent. The constructions discussed above are summed up in the table below.¹⁰

Table 1. Main constructions with *vidh-*

number of attestations	recipient	offering	offering
17/18x	dative	instrumental	—
8x	dative	—	—
4/5x	dative	—	accusative
2/3x	dative	instrumental	accusative

⁸ The enclitic pronoun *te* (*ta* in sandhi) may also be interpreted as a genitive ‘your impetuousness’ (so Geldner); however, based on the fact that the majority of the passages with *vidh-* are construed with a dative, a dative interpretation seems more likely (so Hoffmann 1969).

⁹ The enclitic *te* at 8.19.16c may be taken as a genitive (so Geldner 1951b:320, Hoffmann 1969:5f.) or a dative; see below.

¹⁰ See the Appendix to this chapter for an exhaustive list of construction types and the passages in which they occur.

There are three other passages¹¹ which appear to lie outside the above constructions. As pointed out by Thieme (1949:36), in post-RVic *vidh-* commonly appears with an accusative of the recipient (the recipient of worship), a construction which is analogous to that of *yaj-* ‘worship, honor’. The passages below may indicate that such a construction was already marginally present in the RV:

(8) (RV 1.149.1c)

úpa dhrájantam ádrayo vidhán it
 PVB swiftly.approaching-ACC pressing.stones-NOM.PL honor-AOR.INJ.3PL PCLE
 ‘The pressing stones honor the swiftly approaching one (Indra).’

(9) (RV 2.4.2a [= 10.46.2a]b)

imám vidhánto apaám sadhásthe |
 this.one-ACC honoring-AOR.PT.NOM.PL waters-GEN.PL abode-LOC
dvitā ādadhur bhṛgavo vikṣūv āyóh |
 verily/from.the.beginning¹² deposit-PF.3PL Bhṛgus-NOM.PL settlements-LOC.PL Āyu-GEN
 ‘Honoring him (Agni) in the abode of the waters, the Bhṛgus verily/from the beginning deposited [him] in the settlements of the Āyu (men).’

(10) (RV 8.19.16cd)

vayám tát te śávasā gātuvíttamā |
 we-NOM.PL that-ACC your-GEN power-INS best.path.finders-NOM.PL
índratvotā vidhemahi ||
 aided.by.you-NOM.PL honor/offer-AOR.OPT.1PL.MID
 ‘May we honor/offer that (i.e., *dyumnám* ‘splendor’), [we who are] through your (Agni) power the best path finders, [we who are] aided by you, O Indra.’

Geldner (1951a:207) translates (8) above as ‘den Heraneilenden bedienen die Preßsteine.’¹³

Thieme (1949:36 n. 3), however, rightly points out that the position of the particle *it* shows that the preverb *úpa* does not belong with *vidh-*.¹⁴ As omission of verbs of movement are common with the preverb *úpa*, it is likely that the accusative is not governed by *vidhán* but by a verb that has been deleted. Further supporting this conclusion is the fact that *vidh-* does not occur with preverbs (Hoffmann 1969:5). A more accurate translation would thus be: ‘Towards (*úpa*) the swiftly approaching one [hasten] the pressing stones. They wish to honor [him].’ Although curiously a participle form, (9) does seem to be a genuine example of *vidh-* governing an accusative of the

¹¹ At 2.24.1b, *vidh-* appears with only an instrumental (*girā* ‘with song’); however, the context suggests that a dative should be supplied.

¹² See EVP 12:99.

¹³ See also García-Ramón (2004:492): ‘[T]he pressing stones honour the swiftly approaching one.’

¹⁴ See Grassmann s.v. *íd* 5: “Ist das Verb mit keinem Richtungsworte (Präpos.) versehen, so steht *íd* hinter dem Verb und dies ist dann stets betont.”

recipient.¹⁵ Interpreting the passage in (10) is made difficult by the anomalous middle voice of *vidhemahi* and the enclitic pronoun *te*, which is formally ambiguous between a dative and genitive. Furthermore, *tāt* here refers to the splendor (*dyumnám*) of Agni and not the deity himself. The evidence for an accusative of the recipient construction here analogous to that of *yaj-* ‘worship, honor’ thus remains inconclusive.

The root *vidh-* also appears three times in Old Avestan.¹⁶ Two of these attestations involve a thematic aorist subjunctive *vidāt(i)* (exx. (11) and (12) below) and one a thematic aorist participle *vidqs* (ex. (13) below). In Old Avestan, as in most of the examples in Vedic, the root appears with a dative of the recipient, and even one time in the dative + instrumental construction (ex. (13) below) that is the most frequently attested type in Vedic. The root is also semantically similar in both Old Avestan and Vedic, though the dative recipient is not necessarily a divine or semi-divine being. See the examples below:

(11) (Y. 51.6)

yā hōi nōiṭ vidāiti apāmē aṇhəuš
 who-NOM him-DAT not honor-AOR.SUBJ.3SG final-LOC existence-GEN
uruuāēsē
 turning.point-LOC

‘(What is worse than bad will befall the man) who at the final turning point of [his] existence does not honor him (Ahura Mazdā).’

(12) (Y. 53.4)

yā fδrōi vidāt paθiiaē-cā vāstriiaēbiiō
 who-NOM father-DAT honor-AOR.SUBJ.3SG husband-DAT-and herdsmen-DAT.PL
aṭcā +xvaētauuē
 and family-DAT

‘... [the woman] who will honor [her] father, [her] husband, [their] herdsmen, and [her] family ...’

(13) (Y. 33.3)

vidqs vā θβaxšaṇhā gauuōi
 honor-AOR.PT.NOM or zeal-INS cow-DAT

‘... or be he someone who continues to honor the cow (= the good vision) with zeal ...’
 (trsl. following Insler 1975:51)

¹⁵ See Thieme 1949:36 n. 3. The passage at 10.46.2ab shows that it is unlikely that *imám* at 2.4.2a is governed by *ādadhuḥ*.

¹⁶ Note that Bartholomae (*AiW* 724) assumes ¹*dā(y)-*: “mit *vi* ‘sorgen für -’ (dat.)” for (13) above and ³*vaēd-* ‘dienend ehren’ (*AiW* 1320) for (11) and (12); see also Kellens & Pirart (1990:305): “servir *dat.*”; Cheung (2007:204): “to be devoted to”.

1.3. Thieme and Hoffmann's treatment of the root *vidh-*

Thieme (1949:36) explains the origin of the root *vidh-* in the following way:

Die „Wurzel“ *vidh* ... ist in Wahrheit nur aus Bildungen abstrahiert, die sich aus Formen des Wurzelaorists von *vi* + *dhā* (dem Partizip *vidhānt-*, Optativen wie *vidhéma*, Konjunktiven wie **vidhāti*) entwickelt haben. Der Weg dieser Entwicklung scheint mir greifbar deutlich. Zunächst schwand das Bewußtsein, daß man ein komponiertes Verb vor sich hatte und man akzentuierte im Hauptsatz auch das Präverb nicht ... Dann bildete man ein neues Präteritum (*avidhat*) und konstruierte schließlich das Verb, das zur Bedeutung „opfern“ gekommen war, analog zu *yaj* mit dem Akk. der Person (VS. TB.). Für den RV. ist jedenfalls die richtige Übersetzung „jmdm. durch etwas etwas zuteilen.“

According to Thieme, at some point within the prehistory of Vedic, certain root aorist forms of *ví-dhā-* ‘distribute’—a combination of the preverb *ví* ‘apart’ and the root *dhā-* ‘place’—were mistakenly reanalyzed as thematic aorist forms of a new root *vidh-*. Thieme’s approach entails that the preverb *ví* was reanalyzed as forming part of the root itself. Thieme believed, based on his etymology, that the root *vidh-* was originally synonymous with *ví-dhā-* ‘distribute’ and that it later underwent a semantic shift to ‘worship, honor’. It appears that it was passages like (5) above, quoted once again at (5') below with Thieme’s translation, that led Thieme to believe that the root *vidh-* originated from *ví-dhā-*. For such accusative + dative + instrumental constructions, Thieme translates ‘jmdm. durch etwas etwas zuteilen’.

(5') (RV 8.23.21ab)

<i>yó</i>	<i>asmai</i>	<i>havyádātibhir</i>
who-NOM	him-DAT	sacrificial.gifts-INS.PL
<i>āhutim</i>	<i>márto</i>	<i>avidhat</i>
oblation-ACC	mortal-NOM	offer-AOR.IND.3SG

- ‘The mortal who has offered an oblation to him (the fire god Agni) with sacrificial gifts ...’
 - ‘der Sterbliche, der ihm durch Gaben von Opferspeisen den Zuguß zuteilte’
- (trsl. Thieme 1949:36f.)

As seen in the quote above, Thieme (1949:36) mentions three forms of *ví-dhā-* that, due to their ambiguity, would have been particularly prone to reanalysis as thematic aorists to a root *vidh-*: the participle *vidhánt-*, the subjunctive *vidhāti*, and the optative *vidhéma*.

Hoffmann (1969) supported Thieme's analysis and explicitly worked out the details of the three forms—the participle *vidhánt-*, the subjunctive *vidhāti*, and the optative *vidhéma*—mentioned by Thieme as follows.

On the participle *vidhánt-*: Roots in *-ā* (< PIE laryngeal final roots, i.e., **-eH*) typically preserve their long vowel when forming an aorist participle: exx. *pānt-* from the root *pā-* 'drink', *sthānt-* from the root *sthā-* 'stand'. If, as Thieme argues, *vidhánt-* derives from *ví-dhā-*, we would thus expect **vidhánt-*. To explain the irregular short vowel in *vidhánt-*, Hoffmann appeals to the fact that root aorist participles to roots not ending in *-ā* (i.e., non-laryngeal-final roots) show zero grade of the root + the participle formant *-ánt-*: exx. *gm-ánt-* (root aorist of *gam-* 'go'), *kr-ánt-* (root aorist of *kar-* 'do'). Additional evidence adduced from root aorist participles such as OAv. *daṇtō* (to the root *dā-* 'do, place') and Gk. *θεῖς, θέντος* 'placing' (Iliad 23.254, etc.; to the root *θη-* 'place' < PIE **d^heh₁-*) show that zero grade was also the norm for laryngeal final roots in PIE—thus the root **d^heh₁-* 'do, place' formed a root aorist participle **d^hh₁-ént-* in PIE. Hoffmann argues that the extraction of *vidh-* from *ví-dhā-* took place at a time before the RV when an archaic zero grade root aorist participle *vi-dhánt-* still existed; thus the frequently attested *vidhánt-* would be a direct reflex of an old root-aorist participle that escaped secondary lengthening to **vidhánt-*.

On the subjunctive *vidhāti*: A subjunctive formed from a root aorist *ví-dhā-* (cf. *ví ... dhāti* at RV 2.38.1c) would be formally identical to a subjunctive formed from a thematic aorist of the root *vidh-* except in one regard: the position of the accent in main clauses. In Vedic, verbs and their preverbs are generally accented as follows. In main clauses, the accent is on the preverb and no accent is placed on the verb (clause-initial verbs are however accented). In subordinate clauses, no accent is on the preverb when it directly precedes the verb and the verb is always accented. Thus in main clauses we would expect *ví dhāti* (root aorist subjunctive of *ví-dhā-*) vs. *vidhāti* (thematic aorist subjunctive of *vidh-*), and in subordinate clauses *vidhāti* or *ví ... dhāti* (root aorist subjunctive of *ví-dhā-*) vs. *vidhāti* (thematic aorist subjunctive of *vidh-*).

On the optative *vidhéma*: Based on his reconstruction of the root aorist optative (Hoffmann 1968), Hoffmann argues that *vidhéma* is in origin PIE $*\underline{u}i-d^heh_1-ih_1-me$, i.e., a form with full grade of the root and zero grade of the optative marker built to $ví-dhā$.¹⁷ For PIE, this reconstruction of the root aorist optative is justified by, e.g., the Greek root aorist optative $\thetaείμεν$ ‘place’ < PIE $*d^heh_1-ih_1-me$. In Vedic, however, root aorist optatives built to laryngeal final roots were all rebuilt with a sequence $-eyā$:- *stheyāma* ‘stand’ [1pl.] ← pre-Vedic $*sthema$ < PIE $*stéh_2-ih_1-me$ (cf. Gk. $\sigmaταίμεν$). In order for *vidhéma* to escape being rebuilt to $*vidheyāma$, *vidhéma* must have been analyzed synchronically as a thematic optative to a new root *vidh-*. To sum up, for Hoffmann, *vidhema* represents a pre-Vedic root aorist optative of $ví-dhā$ -, i.e., $*(\underline{u}i-)d^haH-iH-ma$ < PIE $*d^heh_1-ih_1-me$. Before rebuilding to $*vidheyāma$ took place, the form *vidhéma* was reanalyzed as a thematic aorist optative of *vidh-*, i.e., $*\underline{u}id^h-a-iH-ma$.¹⁸

1.4. Critique of Thieme 1949 and Hoffmann 1969

In both Thieme and Hoffmann’s scenarios, it is important to recognize that while extraction of the root *vidh-* from earlier $ví-dhā$ - is supposed to have occurred at a considerably early time within the prehistory of Vedic, this reanalysis is not assumed to have occurred within PIE.¹⁹ While the pre-Vedic thematic aorist optative preform $*\underline{u}id^h-a-iH-ma$ can be restated in PIE terms, i.e., $*\underline{u}id^h-ó-ih_1-me$, a root $*\underline{u}id^h-$ was not posited for PIE by these scholars. This is a crucial point that is sometimes overlooked.²⁰

¹⁷ Jasanoff (1991, 2009) reconstructs a similar root aorist optative for late PIE, although there are some crucial differences between his ideas and Hoffmann’s. For PIE, the optative marker is reconstructed as an ablauting morpheme $*-ieh_1-/*-ih_1-$.

¹⁸ The regularly expected outcomes of $ví-dhā$ - in the optative $*vidheyāma$ and participle $*vidhānt-$ would be formally distinguishable from the same forms built to *vidh-*, i.e., *vidhéma* and *vidhánt-*. On the other hand, ignoring the issues with accent pointed out above, the subjunctive form *vidhāti* would be formally indistinguishable as to whether it is built from $ví-dhā$ - or *vidh-*. In this context, it was pointed out to me that *vidhāti* cannot be used to support reanalysis of $ví-dhā$ - as *vidh-*. However, it is important to understand that the three supposedly ambiguous forms mentioned by Thieme and Hoffmann are not used to show *that* reanalysis of $ví-dhā$ - as *vidh-* took place, but *how* it may have taken place. The existence of a root *vidh-* is a given, and *vidhéma*, *vidhánt-*, and *vidhāti* are cited by Thieme and Hoffmann as forms in which reanalysis may have occurred.

¹⁹ Thieme (1949:36 n. 2, with literature), based on earlier work, mentions Lat. *dīvidere* ‘separate, divide’. It appears that he considered this an inner-Italic development parallel to what occurred in Vedic: “In ähnlicher Weise hat sich wohl aus altem $*vi + dhē$ im Lat. das Verb *dividere* entwickelt.”

²⁰ See, for example, García-Ramón (2004:488): “[Ved. *vidh-* <] IE $*\underline{u}id^h-o/e-$ from $*\underline{u}i-d^h_1-o/e-$ ‘divide,’ whence ‘dole out’ by univerbation of $*\underline{u}i-d^heh_1-$, as shown by Thieme 1949.”

For extraction of *vidh-* from *ví-dhā-* to occur in pre-Vedic, the form *vidhéma* cited by Thieme and Hoffmann must have been ambiguous between a root aorist and a thematic aorist. As observed by Jamison (1999:169), especially at the early stage of the language predating the RV in which the abstraction of *vidh-* is supposed to have occurred, the *-é-* in *vidhéma* would likely have been a disyllable if this reflects a sequence **ui-d^haH-iH-ma* (root aorist optative of *ví-dhā-*) and not **uid^h-a-iH-ma* (thematic aorist optative of *vidh-*), due to the presence of an intervocalic laryngeal in the former as opposed to the latter.²¹

Occasional disyllabic scansion due to the earlier presence of an intervocalic laryngeal is a regular feature observed in a subset of forms in the language of the RV. Well-known examples are the genitive plural ending *-ām* < PIIr. **-aHam* and the thematic ablative singular ending *-āt* < PIIr. **-aHat*. In his study on intervocalic laryngeals in Vedic, Lubotsky (1995:217) states that forms with disyllabic *-e-* such as *jyēṣṭha-* ‘most powerful’ (scanned *jyá.yi.ṣṭha-*) < **jⁱáH-iṣṭha-* are those which go back to a sequence **-aHi-* in which a transparent morpheme boundary was present between the laryngeal and the following suffix, in this case the root **jⁱáH-* + the superlative suffix *-iṣṭha*. A serious problem in Hoffmann’s analysis of *vidhéma* is that his preform **uid^haHiHma* (root aorist optative of *ví-dhā-*) must have lost its laryngeals—despite the presence of a clear morpheme boundary after the first laryngeal—already in Proto-Indo-Iranian, because, as we saw above, a root *vidh-* is attested in Old Avestan.²² As stated by Yoshida (2012:242), “intervocalic laryngeals in **-VHV-*, where **H* was in an onset position, must have been preserved longer than those in coda position. The persistence of intervocalic laryngeals *to a late prehistoric stage* of the individual languages is, in fact, indirectly reflected in the Rig Veda, where the gen. pl. *-ām* and abl. sg. *-āt* are occasionally scanned as two syllables [emphasis mine].” As the final laryngeal in Hoffmann’s **uid^haHiHma* occurs in coda position before the personal ending *-ma*, we may assume an earlier loss of this laryngeal. However, the first laryngeal in the sequence **-aHi-* is clearly in onset position.

²¹ Hoffmann (1976:615 n. 12) in fact assumed that the thematic optative sequence **-o-ih₁-* was disyllabic in PIE, a view that has recently been supported by Jasanoff 2009; see n. 23 below.

²² Neither Thieme nor Hoffmann discuss the evidence from Old Avestan when discussing Ved. *vidh-*.

According to the normal rules of syllabification, i.e., permanent syllabicity of the optative marker **-ih₁-* in athematic stems²³ (cf. Ved. *ṛdhīmahi* not **ṛdhīmahī*; Gk. *θεῖμεν* < **dhe.h₁ih₁.me* not **dheh₁.īh₁.me*), and the evidence of disyllabic *-ayi-* for *-e-* in *jyēs̥tha-* < **jiáHiṣ̥tha-*, **uidhaHiHma* would be syllabified as *vi.dha.HiH.ma* and not *vi.dhaH.iH.ma*. A syllabification **-CVH.īHC-* of the sequence **-CVHiHC-* would be highly anomalous and would not account for the Greek or Vedic forms.

In 12 out of 21 attestations in the RV, *vidhéma* in fact occurs at the end of 11-syllable lines (triṣṭubh meter). In such lines the typical rhythm of the cadence is trochaic: – ∪ – ∪. Here and elsewhere, we find consistent monosyllabic scansion of *-é-* in *vidhéma*. Disyllabic scansion due to the earlier presence of an intervocalic laryngeal was a metrical device used by the poets of the RV. It is important to recognize, however, that the presence of an earlier intervocalic laryngeal does not guarantee disyllabic scansion of these forms in the RV. The monosyllabic scansion of *-é-* in *vidhéma* in the RV thus does not have much bearing on Hoffmann’s reconstruction. However, as we saw above, Hoffmann’s reconstruction encounters serious problems at the stage of Proto-Indo-Iranian—exactly the stage when a root aorist optative of *ví-dhā-* and a thematic aorist optative of *vidh-* are supposed to have been ambiguous.

As for the participle *vidhánt-*, which Hoffmann argues is an archaic form of the root aorist of *ví-dhā-*, Hoffmann must assume reanalysis to *vidh-* to explain why the form was not rebuilt to the expected **vidhánt-*. While this hypothesis cannot be conclusively shown to be wrong, Hoffmann has not ruled out the hypothesis that a thematic aorist of *vidh-* is what underlies *vidhánt-*. This hypothesis is actually simpler in that it does not require assuming reanalysis of an otherwise unattested archaic participle form.

In Thieme and Hoffmann’s scenarios, the preverb *ví*, which is accented in main clauses, must have

²³ Cf. Jasanoff 2009:61. Note the thematic optatives like Ved. *bhāreyuh₁*, Gk. *φέροισιν* ‘may they carry’ < PIE **b^her-o-ih₁-V*, where we find the syllabification *-oi.(i)-* instead of expected *-o.ī-* before vowels. According to Jasanoff, since the optative marker **-ih₁-* was always syllabic in athematic stems, it remained syllabic in the thematic optative sequence **-o-ih₁-*. Apart from the dubious evidence adduced from Balto-Slavic by Jasanoff (2009), the only secure evidence for the syllabification *-oi.(i)-* is in Vedic and Greek before the 1sg. and 3pl. endings which begin with a vowel. There is no evidence in Vedic for the disyllabic scansion of the thematic optative sequence before consonant endings. The Greek 3sg. optative in *-oi* which is exceptionally scanned as long for accent assignment purposes cannot be used as evidence for disyllabic scansion (Jasanoff 2009:56 n. 23).

lost its accent and become incorporated as part of the verb. This is not a trivial matter as there are no other examples in Vedic where a preverb has been reanalyzed as part of the root. For the subjunctive *vidhāti*, we saw that the only place where the accentuation between a root aorist of *ví-dhā-* and a thematic aorist of *vidh-* could coincide is in subordinate clauses. In main clauses the accentuation would clearly be different. Similar difficulties exist with the optative and participle forms. This serious problem of the difference in accentuation has not been satisfactorily dealt with. Thieme (1949:36) merely restates the problem when he says that the accent on the preverb in main clauses was lost because speakers were not completely aware of the presence of a preverb: “Zunächst schwand das Bewußtsein, daß man ein komponiertes Verb vor sich hatte und man akzentuierte im Hauptsatz auch das Präverb nicht.” Hoffmann (1969) also was not able to successfully explain the loss of the accent on *ví*, and many of his proposed steps require us to completely ignore issues of accentuation.

As we have seen, the assumption that *vidh-* was extracted from certain forms of *ví-dhā-* during the prehistory of Vedic has serious flaws and requires unverifiable assumptions to overcome its drawbacks. We have seen how the reanalysis of the preverb as part of the verb is without parallels, and how connecting *vidhánt-* and *vidhéma* with *ví-dhā-* require assumptions that are not necessary if we connect these forms with thematic aorist forms of *vidh-*. Most significantly, Thieme and Hoffmann have not been able to conclusively rule out the simpler hypothesis that the forms in question were built to *vidh-*.

As discussed above, Thieme’s etymological connection between *vidh-* and *ví-dhā-* had as its starting point those passages in which *vidh-* appears with an accusative. Here, Thieme believed that an original meaning ‘distribute’ was appropriate, assuming a later semantic shift to ‘honor’. There are, however, some serious flaws in these assumptions. To examine these, we must turn to the semantics and usage of the root *vidh-*.

1.4.1. Semantics and usage of the root *vidh-*

In the language of the RV, the meaning and, for the most part, the constructions for *vidh-* and *ví-dhā-* differ substantially. In contrast to *vidh-*, which has mortals as its subject and divine beings as

recipients, the subject of *ví-dhā*- ‘distribute’ is always a divine being, and the recipient is a mortal or divine being. Furthermore, the objects of *ví-dhā*- never occur with *vidh*-, with only one exception (García-Ramón 2004:494). Syntactically, *ví-dhā*- in the meaning ‘distribute’ differs from *vidh*- in that it is primarily attested in an accusative (the object bestowed) + dative (recipient) construction, whereas *vidh*- is found most frequently in a dative (recipient) + instrumental (offering) construction. See example (14) below:

- (14) (RV 2.38.1c)
nūnām devébhyo ví hí dhāti rátnam |
 now gods-DAT.PL PVB PCLE distribute-AOR.SUBJ.3SG wealth-ACC
 ‘Now [the god Savitar] will distribute wealth to the gods.’

As convincingly argued by García-Ramón (2004), the root *vidh*-, which solely forms an aorist stem, is in a suppletive relationship with the root *dāś*-, which provides the present and perfect stems. This suppletive relationship is further supported syntactically by the fact that *vidh*- and *dāś*- are most frequently found in the dative (recipient) + instrumental (offering) construction discussed above. Both *vidh*- and *dāś*- show identical objects in the instrumental: *samídh*- ‘firewood’, *havíṣ*- ‘oblation’, *gír*- ‘song’, *námas*- ‘homage’, *yajñá*- ‘sacrifice’, etc. (García-Ramón 2004:497). Like *vidh*-, the root *dāś*-, commonly translated ‘honor, worship’, is used to express homage to the gods with hymns, oblations, etc. in the context of the ritual. Derivatives of these roots may illustrate their ritualistic character. The root noun Ved. *dāś*- f. means ‘offering’, as does OAv. *das̥ma*- m. Note also the compound Ved. *dāśv-ādhvara*- ‘performing a sacrificial act’. The participle forms *vidhánt*- and *dāśváms*- are used as adjectives or to denote someone who offers or worships (Bodewitz 2008:83).²⁴ On *vidh*-, Oldenberg (1912:291) remarks: “*vidh*- betrifft durchaus den Kult, den man den Göttern bringt.” A basic meaning ‘honor, worship’ and strong ritualistic connotations for *vidh*- and *dāś*- are undeniable.

²⁴ The word *vidátha*- n., taken as a derivative of *vidh*- or *ví-dhā*- by Thieme (1949:37), is semantically and etymologically unclear and has therefore not been included.

1.4.2. Syntactic characteristics of verbs used in ritual contexts

We saw above that both Thieme and Hoffmann assume an original meaning ‘distribute’ for the root *vidh-* that is still present in the RV in passages in which this verb is construed with an accusative.²⁵ Bodewitz (2008), based on the synonymy of *vidh-* and *dāś-* and their use in ritualistic contexts, has objected to Thieme’s etymology, arguing that a meaning ‘distribute’ is not present in the RV. Although he in my opinion rightly argues for a basic meaning ‘worship’ for these verbs, I do not believe he was able to satisfactorily treat the passages with an accusative.

Thieme’s etymology, further supported and expanded upon by Hoffmann, has become the *communis opinio*. For example, Mayrhofer’s widely-used etymological dictionary gives only the meanings ‘zuteilen, Genüge tun, zufriedenstellen’ for *vidh-* (EWAia II 555). Meanings like ‘den Göttern dienen/huldigen’, etc. given in earlier lexicons have largely been abandoned. Even while arguing that *vidh-* and *dāś-* are synonymous, García-Ramón (2004) inconsistently translates *vidh-* with the accusative as ‘dole out’, pointing out that this is the etymological construction. In their new translation of the RV, Witzel & Gotō (2007) translate *vidh-* + the accusative with ‘zuteilen’, whereas *vidh-* in other constructions is usually rendered with ‘verehren’. Considering the suppletion with *dāś-* and the syntactic behavior discussed below for semantically similar verbs, I do not consider this meaning justified. To what extent does the dative (recipient) + accusative (offering) construction as opposed to the more frequent dative (recipient) + instrumental (offering) construction for *vidh-* support the assumption of an original meaning ‘distribute’?

Important clues about the behavior of *vidh-* can be gained by looking at how other verbs in the semantic neighborhood of ‘honor/worship/sacrifice’ are used in the RV. The denominative verb *saparya-* ‘ehren, verehren, darbringen’ (EWAia II 699) appears in both an accusative + instrumental construction (15) and a dative + accusative construction (16):

²⁵ Based on the frequency of the optative form *vidhéma* and the assumption that the optative expresses a wish whose fulfillment does not lie within the power of speaker, Hoffmann (1969:2f.) believed that *vidh-* with the accusative meant ‘zuteilen’ in the sense of ‘einen genügend großen, zufriedenstellenden Anteil zuteilen’. When constructed without the accusative, he suggests a meaning ‘einem genug, zu seiner Zufriedenheit zuteilen, einem (durch Zuteilung) Genüge tun, einen (dat.) zufriedenstellen’.

(15) (RV 1.84.12ab)

tā asya námasā sáhaḥ | saparyánti ...
 they-NOM.PL his-GEN homage-INS strength-ACC honor-PR.3PL
 ‘They honor his strength with homage.’

(16) (RV 3.54.3cd)

idám divé námo ... pṛthivyaí | saparyāmi ...
 this-ACC heaven-DAT homage-ACC earth-DAT offer-PR.1SG
 ‘I offer this homage to heaven [and] earth.’

The verb *dāś-* discussed above also appears in both of these constructions in addition to the dative (recipient) + instrumental (offering) construction seen with *vidh-*. See (17), (18), and (19) below:

(17) (RV 5.41.16ab)

kathā dāśema námasā sudānūn | ... marúto ...
 how honor-PR.OPT.1PL homage-INS bountiful-ACC.PL Maruts-ACC.PL
 ‘How shall we honor the bountiful Maruts with homage ...?’

(18) (RV 1.71.6ab)

... yás túbhyam ... | námo ... dāśād ...
 who-NOM you-DAT homage-ACC offer-PR.SUBJ.3SG
 ‘[The one] who will offer homage to you ...’

(19) (RV 8.19.5ab)

yáḥ samídḥā ... | ... dadāśa márto agnáye
 who-NOM firewood-INS honor-PF.3SG mortal-NOM Agni-DAT
 ‘The mortal who has honored Agni with firewood ...’

Although no accusative + instrumental construction is attested, the verb *vidh-* exhibits essentially the same syntactic behavior as the verbs *saparya-* and *dāś-* above. See (9’), (7’), and (1’) below:

(9’) (RV 2.4.2a[= 10.46.2a]b)

imám vidhánto apám sadhásthe |
 this.one-ACC honoring-AOR.PT.NOM.PL waters-GEN.PL abode-LOC
dvitā_ ādadhur bhṛgavo vikṣúv āyóḥ |
 verily/from.the.beginning deposit-PF.3PL Bhṛgus-NOM.PL settlements-LOC.PL Āyu-GEN
 ‘Honoring him (Agni) in the abode of the waters, the Bhṛgus verily/from the beginning deposited [him] in the settlements of the Āyu (men).’

(7’) (RV 1.189.1d)

bhūyiṣṭhām te námaūktiṃ vidhema
 most.abundant-ACC you-DAT praise-ACC offer-AOR.OPT.1PL
 ‘May we offer most abundant praise to you (Agni).’

(1') (RV 2.6.2a)

ayā te agne vidhem_a
 this-INS you-DAT Agni-VOC honor-AOR.OPT.1PL
 'With this (firewood) may we honor you, Agni (the fire god).'

The similarity in syntactic behavior becomes quite apparent when summarized as in the table below:

Table 2. Comparison of construction types		
verb	recipient	offering
<i>saparya-</i>	dative or accusative	accusative or instrumental
<i>dāś-</i>	dative or accusative	accusative or instrumental
<i>vidh-</i>	dative or accusative	accusative or instrumental

In an important paper on this phenomenon, Melchert (1981:252), citing numerous examples from Hittite, Vedic, Latin, Germanic, and Slavic, argues that in PIE verbs used in ritual contexts could appear in the following two constructions: (1) god (acc.) + object (ins.) for verbs like 'venerate', 'revere', 'honor', etc. and (2) god (dat.) + object (acc.) for verbs like 'give', 'offer', 'present', etc. He further points out that the two constructions mutually influenced each other and that verbs of either type came to occur in either construction. As observed by García-Ramón (2004:496), the construction with dative of the recipient and instrumental of the offering is the most frequently attested type for *vidh-* and *dāś-* and is practically exclusive to these two verbs. He argues that *dāś-* originally belonged to type (1) above, and *vidh-* to type (2). Because of the special suppletive relationship between these two verbs in Vedic, they interchanged their original types, leading to the frequent dative + instrumental construction (García-Ramón 2004:509). While I remain uncommitted to García-Ramón's account for the appearance of the dative + instrumental construction, the point to emphasize is that *vidh-* regularly patterns like other verbs used in ritual contexts, i.e., the recipient can appear in the dative or accusative while the offering can appear in the instrumental or accusative.

In the passages above for *saparya-*, *dāś-*, and *vidh-*, it is necessary to modify the English translation from ‘honor’ to ‘offer’ in order to accommodate the different argument structure. Note that in the dative + accusative construction all three of these verbs could equally be translated ‘distribute’, although this meaning has never been seriously considered for *saparya-* and *dāś-*. While ‘distribute’ is possible for these verbs in the dative + accusative construction, the presence of such a construction is not sufficient to conclude that this is in fact the meaning. The evidence for a meaning ‘distribute’ for *vidh-* from such a construction is thus inconclusive. Furthermore, given that there is also no evidence for this meaning in Avestan, it is unlikely that this root was used in the sense of ‘distribute’ in Indo-Iranian.²⁶ Grassmann’s ‘einem Gotte (dat.) huldigen; jemandem (dat.) etwas (acc.) huldigend hingeben’ (Grassmann 1280) most accurately captures the meaning of *vidh-* as it is used in the RV.

1.5. The origin of *vidh-*

As we have seen, there are serious morphological and semantic problems with Thieme and Hoffmann’s proposal that *vidh-* was abstracted from *ví-dhā-*. A root *vidh-* occurs in both Vedic and Old Avestan, so we are justified in assuming a root **uidh-* for Proto-Indo-Iranian which had a meaning ‘worship, honor, revere; offer reverently’. Fortunately, there is good evidence within Vedic that helps us to further refine our reconstruction and posit that PIIr. **uidh-* actually had a root initial laryngeal.

Evidence for the root initial laryngeal is seen in the long scansion of the augment *á-* in the thematic aorist indicative *ávidhat* in the RV (Lubotsky 1994, Arnold 1905:129). *ávidhat* is attested a total of ten times, and long scansion of the augment is guaranteed in at least six passages.²⁷ In the remaining four passages, the length of the augment cannot be determined due to sandhi or the

²⁶ We could assume polysemy for the root, i.e., that older ‘distribute’ and newer ‘honor’ were both preserved, the ‘distribute’ meaning appearing only in a subset of constructions in the RV and not in Avestan at all. But since in Old Avestan the root means ‘honor’, this polysemy must have been maintained from Proto-Indo-Iranian through to the attestation of the RV—a scenario that I find highly implausible.

²⁷ *tuvám paāyúr dāme yás te ávidhat* (2.1.7d), *tuvám putró bhavasi yás te ávidhat* (2.1.9c), *yó asmai havyáir ghṛtávadhbhir ávidhat* (2.26.4a), *áhutim mártō ávidhat* (8.23.21b), *yó vo dhāmabhyo ávidhat* (8.27.15d), *avipró vā yád ávidhad* (8.61.9a).

position of the verb. The long scansion of the augment in six out of ten examples is not trivial and must be taken seriously.

With regard to the orthographically short augment in *ávidhat*, Lubotsky (1994:202) writes: “Another possible counter-argument [to positing an initial laryngeal] may concern the fact that the long augment is not written in the case of *ávidhat* as opposed to the forms [with a root initial laryngeal] like *ánaṭ* [‘attain’] ... *āyunak* [‘yoke’] ... *āriṇak* [‘leave’] ... *āvaḥ* [‘shine’] ... *āvar* [‘cover’] ... *āvṛṇak* [‘turn’] ... *āvidhyat* [‘wound’] ..., etc. The Saṃhitā text of the RV is not free of inconsistencies, however, and this argument has hardly any weight.” An onset laryngeal does not guarantee that the augment will be written long in the RV—note, for example, that *arāvīt*, *avarṣīt*, *avādiṣur*, *āramṣta*, *āruhat*, and *ayāt* are all written with a short augment despite the fact that they have a root initial laryngeal. Perhaps significantly, many of the roots written with a long augment are also attested with a preverb *ā*. Synchronically, roots of this type may have been regarded by the later editors of the RV as containing a preverb *ā*, thus avoiding secondary orthographic shortening. Because *vidh-* is not used with the preverb *ā*, it is not unlikely that an original **āvidhat* may have been changed by the redactors to a synchronically regular *ávidhat*. As seen with the application of classical sandhi which obscured the original metrical characteristics of the RV, later editors valued formal regularity over metrical considerations. As Lubotsky remarks, the text of the RV as it has been transmitted to us, although extremely reliable in many respects, has some inconsistencies. See, for example, *krīṇāti* ‘buy’, which has a long *-ī-* after the participle *krīta-*. The actual length of the vowel in the RV is not verifiable by the meter, but the existence of an etymological short vowel is shown by the Pāli form *kiṇāti*. Because of the long scansion of the augment in *ávidhat* in the majority of its attestations, we are justified in reconstructing PIIr. **H₁uid^h-* with an initial laryngeal.

Up to this point, PIIr. **H₁uid^h-* ‘worship, honor, revere; offer reverently’ can be supported with solid evidence from Vedic and Old Avestan. The question that remains is if this root has cognates outside of Indo-Iranian. As pointed out in many etymological dictionaries, probable cognate forms of this root are attested in Latin and Tocharian.²⁸ Latin *dividere* ‘separate, divide’, which is used as a thematic present, stems from PIE **h₁uid^h(h₁)-*. The root was further clarified semantically by the

²⁸ Note that if these are actual cognates, there is no coherent way in which we could claim that *vidh-* is related to *vī-dhā-*, e.g., that forms like *vidhéma* actually represent archaic root aorist optatives of *vī-dhā-*.

addition of *dis-* ‘apart, away’ < *‘in two’ (EDL 174). Tocharian A and B *wätk-* ‘separate; decide; command, etc.’ go back to PIE **h₁uid^h(h₁)-* with the addition of the present-stem suffix **-sk%*- (Melchert 1978:113, Malzahn 2010:881).

As argued by Lubotsky (1994:204), the root **h₁uid^h(h₁)-* originated in PIE from a compound **d̥ui-d^h(e)h₁-* ‘place in two, divide’, where the element **d̥ui-* is the compositional form of the numeral ‘2’ (cf. the adverb Ved. *dvís* ‘twice’, Latin *bis* ~ older *duis* (Cicero *Orator* 153) ‘twice’ < **d̥ui-s*).²⁹ **d̥ui-d^h(e)h₁-* in PIE was a compound of the same type as PIE **k̑red-d^heh₁-* lit. ‘place in the heart; believe’ (Ved. *śrād dhā-* ‘trust in’, Lat. *crēdere* ‘trust, believe’, etc.) and PIE **m̑s-d^heh₁-* lit. ‘place in the mind’ (OAv. *mān/mən(...)* *dā-* ‘have awareness of’, etc.).

If PIIr. **Huid^h-* ‘worship, honor, revere; offer reverently’ is in fact cognate with PIE **h₁uid^h(h₁)-* (< earlier **d̥ui-d^h(e)h₁-* ‘place in two, divide’), we will have ended up with a conclusion that looks strikingly similar—and yet different in important details—to the original proposal of Thieme and Hoffmann: the *vi-* of *vidh-* does not derive from a preverb *vi* but from the first member of a *compound*; incorporation of this member into the root occurred not in Pre-RVic but in PIE; the shift from ‘distribute’ to ‘worship, honor’ occurred not in Vedic but was complete already by Proto-Indo-Iranian, since Old Avestan shows no traces of a meaning ‘distribute’ and the Vedic passages with a dative (recipient) + accusative (offering) construction are inconclusive.

For the semantic shift from PIE ‘divide, distribute’ to PIIr. ‘worship, honor’, we may speculate that a certain type of distribution in a sacrificial context became associated with the concept of worship or honor in general in Proto-Indo-Iranian. A similar development can be seen in Hittite *šipant-* ‘libate’, which came to refer not just to the act of consecrating an animal by libation, but also to the entire act of sacrificing (Melchert 1981:251). Unfortunately, these considerations about the semantic shift cannot be backed up with actual evidence from the texts.

²⁹ For the inner-PIE dissimilatory change **d* → **h₁* before dentals, cf. Ion. Att. Arc. Lesb. εἰκοσι ‘20’ < Proto-Greek **euk̑mti* < PIE **d̥uih₁ d̑k̑mtih₁* ‘two decads’; see Lubotsky 1994:203f., Kortlandt 1983:97ff., Peters 1991:305 n. 21, and Rau 2009:18 n. 16, 17.

1.6. Conclusion

Examination of the evidence from a variety of angles has shown that **H_uid^h-* was clearly a separate root already in Proto-Indo-Iranian, a fact which forces us to abandon Thieme and Hoffmann's derivation of the root *vidh-* from certain forms of the root aorist of *vi-dhā-*. In Indo-Iranian, the root **H_uid^h-* formed exclusively thematic aorist stems. With secure evidence that *vidhéma* is a thematic aorist and not a root aorist in origin, this eliminates all forms in Vedic that exhibit Hoffmann (1968) and Jasanoff's (1991, 2009) reconstruction of the 1pl. of the root aorist optative.

We have seen that *vidh-* appears in a variety of syntactic constructions in Vedic, and that its appearance in a dative + accusative construction is not sufficient to assume a meaning 'distribute', but is a regular construction observed in verbs used in ritual contexts. Suppletion with *dāś-* adds further support to our conclusion that the Proto-Indo-Iranian root **H_uid^h-* meant 'worship, honor, revere; offer reverently'. Possible cognates in Latin and Tocharian suggest that all these forms may go back to PIE **h₁u_id^h(h₁)-* 'divide', although these considerations remain inconclusive.

APPENDIX TO CHAPTER ONE: CONSTRUCTION TYPES WITH VIDH-

dative (recipient) + instrumental (offering): 17/18 passages			
form	passage	dative	instrumental
<i>vidhema</i>	1.114.2b	<i>te</i> (= <i>rudrāya</i>)	<i>nāmasā</i>
<i>vidhema</i>	2.6.2a	<i>te</i> (= <i>agnāye</i>)	<i>ayā</i> (= <i>samīdhā</i>)
<i>vidhēma</i>	2.9.3ab	<i>te</i> (= <i>agnāye</i>)	<i>stómaiḥ</i>
<i>ávidhat</i>	2.26.4a	<i>asmai</i> (= <i>brahmaṇaspati</i>)	<i>havyáiḥ</i>
<i>vidhema</i>	2.35.12ab	<i>asmái</i> (= <i>apām nápād</i>)	<i>yajñáiḥ, nāmasā, havírbhiḥ</i>
<i>vidhema</i>	4.4.15a	<i>te</i> (= <i>agnāye</i>)	<i>samīdhā</i>
<i>vidhema</i>	5.4.7ab	<i>te</i> (= <i>agnāye</i>)	<i>uktháiḥ, havyáiḥ</i>
<i>vidhema</i> (if <i>máhi</i> = adverb)	6.1.10ab	<i>te</i> (= <i>agnāye</i>), <i>mahé</i>	<i>námobhiḥ, samīdhā, havyáiḥ, gīrbhiḥ, uktháiḥ</i>
<i>ávidhat</i>	6.54.4a	<i>asmai</i> (= <i>pūṣṇé</i>)	<i>havīṣā</i>
<i>vidhema</i>	7.14.2a	<i>te</i> (= <i>agnāye</i>)	<i>samīdhā</i>
<i>vidhema</i>	7.63.5cd	<i>vām</i> (= <i>mitra</i> and <i>varuṇa</i>)	<i>námobhiḥ, havyáiḥ</i>
<i>vidhema</i>	8.23.23abc	<i>agnāye</i>	<i>matíbhiḥ</i>
<i>vidhema</i>	8.43.11c	<i>agnāye</i>	<i>stómaiḥ</i>
<i>vidhema</i>	8.48.12c	<i>sómāya</i>	<i>havīṣā</i>
<i>vidhema</i>	8.48.13c	<i>te</i> (= <i>índave</i>)	<i>havīṣā</i>
<i>vidhema</i>	8.54.8a	<i>te</i> (= <i>índrāya</i>)	<i>stómebhiḥ</i>
<i>vidhema</i>	10.121.1–9d	<i>devāya</i>	<i>havīṣā</i>
<i>vidhema</i>	10.168.4d	<i>vātāya</i>	<i>havīṣā</i>

dative (recipient): 8 passages

form	passage	dative
<i>vidhema</i>	1.36.2b	<i>te</i> (= <i>agnáye</i>)
<i>vidhāti</i>	1.120.1	<i>vām</i> (= <i>aśvins</i>)
<i>ávidhat</i>	1.136.5a	<i>mitrāya, váruṇāya</i>
<i>ávidhat</i>	2.1.7d	<i>te</i> (= <i>agnáye</i>)
<i>ávidhat</i>	2.1.9c	<i>te</i> (= <i>agnáye</i>)
<i>vidhat</i>	8.5.22a	<i>vām</i> (= <i>aśvins</i>)
<i>ávidhat</i>	8.27.15d	<i>dhāmabhyaḥ</i>
<i>ávidhat</i>	10.83.1a	<i>te</i> (= <i>manyáve</i>)

dative (recipient) + accusative (offering): 4/5 passages

form	passage	dative	accusative
<i>vidhema</i>	1.189.1d	<i>te</i> (= <i>agnáye</i>)	<i>nāmaüktim</i>
<i>vidhanta</i>	3.3.1ab	<i>vaiśvānarāya</i>	<i>vípaḥ, rátnā</i>
<i>vidhemahi</i>	8.19.16d	<i>te</i> (= <i>agnáye</i>) (or genitive?)	<i>tát</i> (= <i>dyumnám</i>)
<i>ávidhat</i>	8.61.9ab	<i>te</i> (= <i>índrāya</i>)	<i>vācaḥ</i>
<i>ávidhat</i>	9.114.1d	<i>te</i> (= <i>sómāya</i>)	<i>mānaḥ</i>

dative (recipient) + accusative (offering) + instrumental (offering): 2/3 passages

form	passage	dative	accusative	instrumental
<i>vidhema</i>	6.1.10ab	<i>te</i> (= <i>agnáye</i>), <i>mahé</i>	<i>máhi</i> (or adverb?)	<i>námobhiḥ,</i> <i>samídhā, havyáih,</i> <i>gīrbhīḥ, uktháih</i>
<i>ávidhat</i>	8.23.21ab	<i>asmai</i> (= <i>agnáye</i>)	<i>āhutim</i>	<i>havyádātibhiḥ</i>
<i>vidhema</i>	8.96.8d	<i>te</i> (= <i>índrāya</i>)	<i>śúṣmaṃ</i>	<i>havíṣā</i>

other constructions: 3/4 passages

form	passage	instrumental	accusative	genitive
<i>vidhán</i>	1.149.1c	—	—	—
<i>vidhema</i>	2.24.1b	<i>girā́</i>	—	—
<i>vidhemahi</i>	8.19.16d	—	<i>tát</i> (= <i>dyumnám</i>)	<i>te</i> (= <i>agnéh</i>) (or dative?)
<i>vidhántaḥ</i>	2.4.2a (= 10.46.2a)	—	<i>imám</i> (= <i>agním</i>)	—

CHAPTER TWO

A “Lost” *i*-stem: Pāli *piṭṭhi*- ‘back’

2.1. Introduction

For the body part ‘back’, both Vedic and Pāli have a neuter *a*-stem: Ved. *pr̥ṣṭhá-*, Pā. *piṭṭha-*.³⁰ However, Pāli also has a feminine *i*-stem *piṭṭhi-* ‘id.’, and no corresponding form **pr̥ṣṭhí-* exists in Vedic.³¹ In this chapter, I will clarify the relationship between the Pāli forms *piṭṭha-* and *piṭṭhi-* and explore the prehistory of these words and their cognates within Indo-Iranian and the early Indo-European context.

2.2. Previous approaches to Pā. *piṭṭhi*- ‘back’

Due to the existence of the well-established *a*-stem *pr̥ṣṭhá-* ‘back’ in Vedic and the lack of an *i*-stem there, one approach is to explain the Pāli *i*-stem *piṭṭhi-* as a secondary form which arose by a process of vowel assimilation.³² In this view, the stem-final vowel *-a* in Pā. *piṭṭha-* underwent progressive assimilation to the preceding *-i-*, yielding the *i*-stem *piṭṭhi-*. Assimilation to a following *-i-* or a nearby palatal is not common in Pāli, but there are some reliable examples, e.g. Pā. *timissā-*³³ f. ‘moonless night’ (: Ved. *támisrā-* f. ‘dark night’), Pā. *tissā* [f.gen.sg.] ‘her’ (: Ved. *táśyāḥ*).³⁴ However, as instances of this process involve an umlaut-like regressive assimilation of a vowel that is not in stem-final position, they are fundamentally different from the assimilatory process that is supposed to have changed an original *piṭṭha-* to a secondary *piṭṭhi-*. An otherwise unmotivated change from an *a*-stem to an *i*-stem would be highly anomalous in Pāli.

³⁰ There are no passages which allow us to discern the gender of Pā. *piṭṭha-*, but I assume neuter gender based on the Vedic form. See below for discussion.

³¹ Like Pāli, both the *a*- and *i*-stem forms of this word appear in the various Prakrits; see Pischel 1900:55 §53 and *CDIAL* s.v. *pr̥ṣṭí-* and *pr̥ṣṭhá-*.

³² This was argued by Trenckner 1908:104 with n. 2.

³³ For a passage with this f. *ā*-stem, which is not commonly used in Pāli, see the Jātaka (PTS) vol. III p. 433 line 10.

³⁴ Oberlies 2001:41ff.

Another approach is to relate the *i*-stem *piṭṭhi-* to Ved. *pr̥ṣṭí-* f. ‘rib’.³⁵ Although there are no phonological problems with this proposal, the semantic discrepancy between ‘rib’ and ‘back’ remains to be explained. One could perhaps argue that metonymy (or synechdoche) is behind the semantic shift, but this would require that in the prehistory of Pāli an *i*-stem originally meaning ‘rib’ was not only metonymically extended to ‘back’, for which Pāli already had the word *piṭṭha-*, but that the meaning ‘rib’ was entirely lost, as Pāli has no stem *piṭṭhi-* that means ‘rib’.³⁶ The likelihood that Pā. *piṭṭhi-* is somehow related to Ved. *pr̥ṣṭí-* is further lessened by the details which I will discuss below.

Although an *i*-stem **pr̥ṣṭhí-* ‘back’ is unattested in Vedic, an *i*-stem is found in Iranian, e.g. YAv. *paršti-* f. ‘back’, Sogd. *prc(h)* ‘id.’ (< **paršti-*), Khot. *palsti-* ‘id.’ Note, however, that Young Avestan also has the *a*-stem *paršta-*, a masculine noun meaning ‘backbone, support, protection’. Mayrhofer (*EWAia* s.v. *pr̥ṣṭí-* and *pr̥ṣṭhá-*) rightly points out that the Middle Indic and Iranian forms showing an *i*-stem have the meaning ‘back’ and are therefore better connected with Ved. *pr̥ṣṭhá-* n. ‘back’ than with Ved. *pr̥ṣṭí-* f. ‘rib’.³⁷

For Ved. *pr̥ṣṭhá-*, Mayrhofer reconstructs **pr̥-sth₂-ó-* ‘hervor-stehend’,³⁸ a reconstruction which ultimately goes back to the Petersburg Wörterbuch (*PW* s.v. *pr̥ṣṭhá-*), where it is suggested that *pr̥ṣṭhá-* n. ‘back’ is connected with *pra-sthā-* ‘standing forth’ in the sense of ‘the protruding part of an animal’. Following the lead of Mayrhofer, for the forms in Middle Indic and Iranian which mean ‘back’ we can reconstruct a corresponding *i*-stem **pr̥-sth₂-í-*.

Looking outside of Indo-Iranian, we see a handful of forms in the various branches which are generally thought to go back to either the PIE *o*-stem **pr̥-sth₂-ó-* (> Lith. *pir̥štas* m. ‘finger’, OCS *pr̥istŭ* m. ‘id.’, etc.) or the PIE *i*-stem **pr̥-sth₂-í-* (ON *fyrst* m. ‘ridge of a roof’, etc.). These and other forms will be discussed in more detail below. First we will turn to the relationship between these two stems.

³⁵ Turner (*CDIAL* s.v. *pr̥ṣṭí-*) gives the meaning ‘vertebrae’ for *pr̥ṣṭí-* and proposes that the meaning ‘ribs’ arose through association with *pārśu-* m. ‘rib’. I am not aware of any passages which suggest the interpretation of ‘vertebrae’ for *pr̥ṣṭí-*. At least in the RV and AV, *pr̥ṣṭí-* is used only in the plural, and many passages require that these *pr̥ṣṭí-* be located on the sides of the torso.

³⁶ For ‘rib’ Pāli uses *phāsukā-*, *pāsuka-*, *pāsuḷa-*, etc.

³⁷ *pr̥ṣṭí-* is a *ti*-stem built to a root **per̥k-* which is also attested in Ved. *pārśvá-* n. ‘flank, the ribs (collective)’ and Ved. *pārśu-* m. ‘rib’; see Nussbaum 1986:112 n. 12 and p. 116.

³⁸ *EWAia* s.v. *pr̥ṣṭhá-*.

2.3. **pr-sth₂-ó-* and **pr-sth₂-í-*

The alternation between an *o*-stem and an *i*-stem immediately suggests the derivational process elucidated by Schindler in his seminal paper on the Sanskrit *cvi*-formation.³⁹ As shown by Schindler, one function of the stem vowel *-i* in PIE was to build abstracts to corresponding *o*-stem adjectives. I list some well-known examples below:

- a. Ved. *jīrá-* ‘quick, lively’ : Ved. *jīrí-* ‘(lively) flowing water’
- b. Gk. ἄκρος ‘topmost’ : Gk. ἄκρῖς ‘hilltop’
- c. OCS *zŭlŭ* ‘bad’ : *zŭlŭ* ‘badness’
- d. Lat. *rauus* ‘hoarse’ : *rauis* ‘hoarseness’
- e. Ved. *śéva-* ‘intimate, dear’ (< PIE **kélj_uo-* ‘socially close’) : Lat. *cīuis* ‘citizen’ (< PIE **kélj_ui-* ‘societal closeness’)⁴⁰

As Schindler (1980:390) points out, this derivational process remained synchronically productive only in Slavic. Outside of Slavic, the forms generated by this former system lie scattered among the various branches, some pairs being preserved in a single branch (like Ved. *jīrá-* and *jīrí-* above) while others are attested in separate branches (like Ved. *śéva-* and Lat. *cīuis* above). As noted by Schindler (1980:390), one significant consequence of the loss of this derivational process is that the *i*-stem abstracts tended to undergo concretization while the *o*-stem adjectives were subject to substantivization (as in Ved. *abhrá-* n. ‘rain-cloud’ < **ṛbh-ró-* ‘damp, wet’). Recent work by Nussbaum (2004) has further shown that beside the *i*-stem abstracts identified by Schindler, the *i*-stem could also form masculine “endocentric” substantivizations meaning ‘the X one’, where X is the base adjective (as in YAv. *tiyri-* m. ‘arrow’, lit. ‘the sharp one’).⁴¹

³⁹ See Schindler 1980.

⁴⁰ See Vine 2006.

⁴¹ See also Vine 2006:151.

With this derivational process in mind, let us return to the forms in question. I propose that the situation in PIE was as follows:⁴²

- a. **pr₂-sth₂-ó-* ‘standing forth, prominent’ (*o*-stem adjective)
- b. **pr₂-sth₂-í-* ‘prominence/the prominent one’ (*i*-stem abstract/m. endocentric substantive)

Reflexes of the above *o*-stem are attested in Indo-Iranian and Balto-Slavic, e.g. Ved. *pr̥ṣṭhá-* n. ‘back’, Pā. *piṭṭha-* (n.?) ‘id.’, YAv. *paršta-* m. ‘backbone, support’, Lith. *pirštas* m. ‘finger’, Latv. *pir(k)sts* m. ‘id.’, OPr. *pīrsten* n. ‘id.’, OCS *pr̥stŭ* m. ‘id.’. The difference in meaning between ‘back’ in Indo-Iranian and ‘finger’ in Balto-Slavic would be hard to reconcile if we assumed a concrete substantive as a common protoform; however, these senses become readily understandable when we posit an abstract adjective that was later substantivized in different ways in these two branches. Words for ‘finger’ in the IE lexicon are connected with various concepts—pointing, bending, etc.—and what ‘finger’ and ‘back (of an animal)’ have in common is that they can be viewed as the prominent or projecting part of the body.⁴³ Note that *pr̥ṣṭhá-* is commonly used in the RV in the sense of ‘top, summit, the upper reaches’.⁴⁴

The neuter gender of the Vedic (and probably also Pāli) *a*-stem forms reflects the widely-attested function of the neuter as a way to substantivize adjectives.⁴⁵ The masculine gender of YAv. *paršta-* is unclear to me, but it may be due to its agential semantics, as I will discuss in more detail below. Based on the Vedic and Old Prussian evidence, Derksen (2008:429) suggests positing an oxytone neuter *o*-stem for Proto Balto-Slavic and proposes that the gender shifted to masculine in Proto Slavic due to influence from the class of masculine *o*-stems which continue Balto-Slavic barytone neuters.

⁴² See NIL 637f. for various words in the Indo-European lexicon with the shape **sth₂-ó-* and **sth₂-í-*. For the type of compound attested here, which has zero grade in both its prefix and root, see, for example, Ved. *sa-gm-á-* ‘Zusage, Einswerden im Handel’ (VS, TS) < PIE **sm̥-gm-ó-* and Ved. *nīḍá-* m. ‘nest’ < PIE **ni-sd-ó-*.

⁴³ Note that in Indo-Iranian the underlying sense seems to be prominence in an upward direction while in Balto-Slavic the sense is extension outward from a central point; see ‘extremities’ in the sense of ‘fingers and toes’.

⁴⁴ Note also *pr̥ṣṭhyá-* ‘coming from the heights (i.e., soma-)’ (RV+).

⁴⁵ See Rau 2009:42.

The *i*-stem is continued in, e.g., Pā. *piṭṭhi*- f. ‘back’, YAv. *paršti*- f. ‘id.’, Sogd. *prc(h)* ‘id.’, Khot. *palsti*- ‘id.’, ON *fyrst* m. ‘ridge of a roof’, OHG *first* m./f. ‘id.’, and OE *first* f. ‘ceiling’.⁴⁶ The Germanic forms go back to PGmc. **fursti*-, where subsequent *i*-umlaut has fronted the vowel *-u*-. In Indo-Iranian and Germanic, we see how the common concept of prominence in an upward direction is behind the meanings ‘back’ and ‘ridge’.

As we saw above, the outcomes of both **pr-sth₂-ó-* and **pr-sth₂-í-* are substantives in Indo-Iranian, and it is likely that the semantic change from **‘prominent/prominence’* > **‘the prominent part/a prominence’* > ‘back’ had already been completed by the Proto Indo-Iranian stage. In inquiring into why an expected **prsthí-* ‘back’ was lost in Vedic, it is more instructive to pose the question in the reverse: Why were Avestan and Pāli able to maintain over a considerable span of time two different stems for the word ‘back’?

After the *o*-stem adjective/*i*-stem abstract system of derivation became synchronically unproductive, and especially in cases where both the original adjective and abstract were subsequently substantivized or concretized, it is to be expected that one of the stems would be prone to being eliminated over time. Note that in cases like Ved. *jirá-* ‘quick, lively’ and *jirí-* ‘(lively) flowing water’, where both stems were maintained in a single branch, the forms tend to show a semantic and/or functional distinction.⁴⁷ The fact that Avestan and Pāli have maintained both the *a-*

⁴⁶ Lat. *postis* m. ‘doorpost, stile’ may also belong here, but the form is somewhat ambiguous. De Vaan (*EDL* 484) reconstructs for *postis* a Plt. **po(r)sti*- and points out that the PIE form could be either **pr-sth₂-í-* ‘standing forth’ or **po-sth₂-í-* ‘standing up’. If Lat. *postis* does continue PIE **pr-sth₂-í-*, this would likely represent a masculine endocentric substantivization. Note also Gk. *παστάς, -άδος* f. ‘front porch’ (Herodotus), which is suggestive but too problematic to be probative.

⁴⁷ Werner Knobl points out to me that the semantic distinction between *jirá-* and *jirí-* may not be as clear-cut as is usually assumed. The stem *jirá-* appears eight times in the simplex in the RV. In five of its occurrences, *jirá-* clearly functions as an adjective modifying another noun. In 1.48.3b *jirā ráthānām* ‘die Wagen in Bewegung setzend (trsl. Geldner 1951a:59)’, *jirá-* functions as an adjective construed with a genitive. *jirā* [f. nom. pl.] in 9.66.25c can be interpreted as a substantivized adjective or as an adjective to be supplied with a noun like *dhārāḥ* [f. nom. pl.] ‘streams [of soma]’; see Śāyaṇa’s commentary and Geldner’s translation ‘rasche (Güsse)’ (Geldner 1951c:54). The accusative *jirám* in 5.31.12d should be interpreted as a n. or m. substantive meaning ‘(lively) movement [of the pressing stones]’ against Oldenberg (1909:328), who interprets it as an adverb. The *i*-stem *jirí-* (f. or m.!), on the other hand, appears three times in the RV and is consistently used as a substantive: once in the locative ‘in flowing water’ (9.66.9b) and twice in the nominative plural ‘the (lively) waters, streams’ (2.17.3d, 3.51.5d). Note that *jirá-* and *jirí-* both appear in hymn 9.66. If *jirā* in 9.66.25c is indeed to be taken as a substantive meaning ‘quickly flowing streams’, it would come close to the semantic sphere of the locative *jiráu* ‘in the flowing water’ in 9.66.9b. This raises interesting questions about the semantic distinction between a substantivized adjective versus a substantive when both forms derive from the same root. Suffice it to say for now that the distinction between *jirá-* and *jirí-* is that *jirá-* is at its base adjectival (and of course subject to substantivization) while *jirí-* functions uniformly as a substantive and not as an adjective. Both *jirá-* and *jirí-* have at their base the concept of quickness or liveliness, but *jirí-* is semantically more restricted in that it is exclusively associated with water. In the post-RVic texts both stems die out.

and *i*-stem for ‘back’ suggests two interesting possibilities to pursue: (1) Is there a semantic or functional distinction between the *a*- and *i*-stem forms for ‘back’ in Avestan and Pāli? (2) Although it is a Middle Indic language, why is Pāli closer to Avestan than Vedic with regard to its preservation of both stems? We will take up the second question first.

It has been noted that Pāli preserves forms which suggest that it developed from a dialectal base somewhat different from Vedic.⁴⁸ In some cases, these forms show a closer affinity to Avestan than Vedic.⁴⁹ For example, in contrast to the voiceless initial cluster seen in Ved. *kṣar*- ‘flow’ (< PIIr. **gʷh^har*- < PIE **dʰgʷ^her*-), which has undergone extensive neutralization of the voicing distinction of PIE voiced dental + velar clusters, Pāli *°ghar*- ‘id.’ (: Av. *γžar*-) has preserved the original voicing. Another example is Pāli *n(a)hāru*- ‘sinew’, which, like Av. *snāuur*, has preserved the *r*-stem, while Vedic primarily employs the *n*-stem *snāvan*-. The parallelism between YAv. *paršta*-, *paršti*- and Pā. *piṭṭha*-, *piṭṭhi*- is quite striking. Let us turn now to the first question which was posed above.

2.4. Distinctions between the *a*-stem and *i*-stem for ‘back’ in Pāli and Avestan

As noted by the Pāli Text Society’s (PTS) Pāli-English Dictionary (*PED* s.v. *piṭṭha*- and *piṭṭhi*-), *piṭṭhi*- is used primarily to refer to the body part while *piṭṭha*- typically appears in the oblique cases and functions as a postposition expressing spatial relations, e.g. *°piṭṭhe* [loc.] ‘near, at, on top of’, *°piṭṭhena* [ins.] ‘along, beside’.⁵⁰ To investigate how often *piṭṭha*- is used in the oblique versus the direct cases, I conducted an exhaustive search of the Pāli corpus including the early commentarial literature. Significantly, my search turned up not a single nominative or accusative form of *piṭṭha*- in the entire canonical literature. I also found that the stem *piṭṭha*- does not occur in the canonical literature in the simplex and appears only as the second member in compounds.⁵¹

⁴⁸ See Kobayashi 2004:7.

⁴⁹ See Oberlies 2001:7. This is not to say that Pāli can be grouped with Avestan historically. Because the affinities between Pāli and Avestan are not shared innovations, no conclusions as to their dialectal relationship can be drawn from these similarities.

⁵⁰ See also *CDIAL* s.v. *pr̥sthá*-, where the only forms for Pāli noted are *piṭṭhe* [loc.] ‘on’ and *piṭṭhena* [ins.] ‘beside, along’.

⁵¹ The distribution of *piṭṭha*- in the later commentarial literature is largely the same as that in the canonical literature; however, there are a very small number of passages, almost all of them in considerably late Burmese manuscripts, where we find *piṭṭha*- in the nominative-accusative or in the simplex. Because post-canonical Pāli was heavily influenced by Sanskrit, these anomalous usages have little probative value.

In contrast to the extremely limited distribution of *piṭṭha-*, the stem *piṭṭhi-* can be used freely in both direct and oblique cases and in simplex forms and various compounds, where it appears as either the first or second member. For the nominative, see, e.g., *piṭṭhi me āgilāyati* ‘my back is tired’.⁵² The accusative appears in, e.g., *piṭṭhiṃ kaṇḍūvamāno* ‘while scratching [his] back’.⁵³ The stem *piṭṭhi-* ‘back’ is of course subject to metaphorical extension and can be used to refer to the back or top surface of an object, as can be observed in compounds like *piṭṭhi-pāda-* ‘dorsum pedis’, *piṭṭhi-pāsāṇa-* ‘flat rock, plateau’, *piṭṭhi-bāha-* ‘shoulder blade’, etc.⁵⁴

The conclusion we can draw from the distribution of the stems *piṭṭha-* and *piṭṭhi-* is that the *a-* stem has been thoroughly relegated for use as a postposition to express the spatial relation ‘on top of, etc.’ while the *i-* stem is primarily used to refer to the body part ‘back’. The relegation of these stems to distinct functions helps to explain why Pāli was able to preserve both forms. Note that the distribution of *piṭṭhi-* overlaps with that of *piṭṭha-* only when *piṭṭhi-* appears in an oblique case in the second member of a compound. I have observed this alternation in compounds like *assa-piṭṭhi-/°a-*[obl.] ‘on the back of a horse’, *pāda-piṭṭhi-/°a-*[obl.] ‘on top of the foot’, *pāsāṇa-piṭṭhi-/°a-*[obl.] ‘on top of a rock’, *udaka-piṭṭhi-/°a-*[obl.] ‘on the water’, *nakha-piṭṭhi-/°a-*[obl.] ‘on the back of the fingernail’, *hattha-piṭṭhi-/°a-*[obl.] ‘on the back of the hand’.

Let us turn now to the distinction between the Young Avestan forms *paršta-* and *paršti-*. *paršti-* f. ‘back’ appears in V. 8.51–52, V. 9.18–19, and Yt. 14.56. *paršta-* m. ‘backbone, support, protection’ appears in Yt. 1.19 and Yt. 13.71. As the passages aren’t numerous, it may be helpful to cite them all here.

⁵² Aṅguttara-Nikāya (PTS) vol. V p. 123 line 1.

⁵³ Aṅguttara-Nikāya (PTS) vol. II p. 207 line 19.

⁵⁴ See the PTS Pāli-English Dictionary s.v. *piṭṭhi-* for other compounds cited from the texts. Two philological points are in order here. The PTS dictionary gives the meaning ‘the back of the foot, the heel’ for *piṭṭhi-pāda-*, but this is incorrect. *piṭṭhi-* here does not mean the back part of the foot but the upper part of the foot (thus ‘dorsum pedis’ above); see the Jātaka (PTS) vol. V p. 472 line 11: *so taṃ disvā, ekaṃ vatim laṅghanto khadira-khāṇukaṃ akkamitvā, khāṇuko piṭṭhi-pādena nikkhami*. ‘After having spotted him, hopping over a fence he stepped on a stake made of khadira wood, [and] the stake came out through the top of his foot.’ The PTS dictionary also incorrectly gives ‘the back of the arm, i.e. elbow’ for the compound *piṭṭhi-bāha-*. This should be emended to ‘shoulder blade’, as it refers to the area located above the upper “arm” of (originally) a quadruped; see the commentary to the Khuddaka-Pāṭha (PTS) p. 49 line 8 which lists the bones of the body in order: *ekaṃ hadayaṭṭhi, dve akkhakaṭṭhīni, dve piṭṭhi-bāhaṭṭhīni*, [the Burmese edition correctly has here *dve bāhaṭṭhīni*], *dve dve agga-bāhaṭṭhīni* ‘one breast-bone, two collar-bones, two shoulder-blade-bones (lit. bones located above the upper arm), [two upper-arm-bones], two [and] two fore-arm-bones’. On the following page of this commentary on line 16 we find a description of the *piṭṭhi-bāhaṭṭhīni* ‘shoulder-blade-bones’ as *pharasu-phāṇa-saṇṭhānāni* ‘having the shape of a hatchet or a snake’s hood’.

(1) (V. 8.51)

paršti⁵⁵ hē aēšqm aēša druxš yā nasuš upa.duuqsa'ti
back-ACC.DU his-GEN these-GEN.PL this-NOM Druj-NOM Nasu-NOM rush-PR.3SG

‘(O righteous creator of the material world, when the good waters reach the chest in front, to where of these [parts of the body] does this Druj Nasu (Demoness of the Corpse) rush? Then Ahura Mazdā spoke:) Of these [parts of the body] this Druj Nasu rushes to his back.’

(2) (V. 8.52)

yezica āpō vanuhīš paršti pa'ti.jasa'ti kuua aēšqm
when waters-NOM.PL good-NOM.PL back-ACC.DU reach-PR.3SG where these-GEN.PL
aēša druxš yā nasuš upa.duuqsa'ti
this-NOM Druj-NOM Nasu-NOM rush-PR.3SG

‘(O righteous creator of the material world,) when the good waters reach [his] back, to where of these [parts of the body] does this Druj Nasu rush? (Then Ahura Mazdā spoke: Of these [parts of the body] this Druj Nasu rushes to his right nipple.)’

(3) (V. 9.18)

āaṭ hā druxš yā nasuš paršti upa.duuqsa'ti
then that-NOM Druj-NOM Nasu-NOM back-ACC.DU rush-PR.3SG

‘(You should sprinkle his right armpit; then the Druj Nasu rushes to the left armpit. You should sprinkle his left armpit; then the Druj Nasu rushes to the chest in front. You should sprinkle his chest in front;) then the Druj Nasu rushes to [his] back.’

(4) (V. 9.19)

paršti hē pa'ti.hiṇcōiš
back-ACC.DU his-GEN sprinkle-PR.OPT.2SG

‘You should sprinkle his back; (then the Druj Nasu rushes to the right nipple. You should sprinkle his right nipple; then the Druj Nasu rushes to the left nipple. You should sprinkle his left nipple; then the Druj Nasu rushes to the right rib area.)’

(5) (Yt. 14.56)

yaṭ nūrəm ... mašiiāka daēuuaiiāzō frā parštīm⁵⁶
when now men-NOM.PL demon-worshipping-NOM.PL PVB back-ACC
nāmaiie'ṇti
bend-PR.3PL

‘When now ... the demon-worshipping men bend the back, (when they dislocate the torso, when they stretch apart all the limbs ...)’

⁵⁵ The form *paršti* here and in the following passages is an accusative dual. The dual is used to express the concept of the entire area of the back, i.e., both the right and left sides; see *AiW* s.v. *paršti*-.

⁵⁶ *parštīm* is the form given in Geldner's edition, presumably because this reading is found in the oldest Indian Khorda Avesta manuscript Jm4. The manuscripts here show variation between an ending in *-īm* (Jm4, Ml2, L18, P13, O3) and one in *-əm* (F1, Pt1, E1, L11, J10). Bartholomae (*AiW* 878) favored the reading with *-əm*, adding the comment “so alle guten Hds.” Both variants, however, are found in relatively reliable manuscripts. As de Vaan (2003:264f.) has shown, replacement of original *-īm* by secondary *-əm* (or *-ēm*) after the analogy of the highly frequent acc. sg. of the *a*-stems is commonly observed in the manuscripts. The reading *-īm* is thus the *lectio difficilior*, as it is harder to explain the replacement of *-əm* by secondary *-īm* than vice versa. Based on these considerations and also the semantic distinction I propose below for the *i*-stem and the *a*-stem, the original reading was most likely *-īm*.

(6) (Yt. 1.19)

vīṣqsta-ca imā nāmānīš parštaš-ca pa'riuuāras-ca
 twenty-and these-NOM.PL names-INS.PL support-NOM-and surrounding.shield-NOM-and
vīṣante pa'ri ma'nīiaoīiāt drujaṭ
 be.in.place-PR.3PL from of.the.spirit.world-ABL Lie-ABL
 'And these twenty names [of Ahura Mazdā] are in place as a support and as a surrounding shield
 from the Lie [which is] of the [unseen] world of the spirit ...'

(7) (Yt. 13.71)

tā hē sna'iṭiṣ-ca varṇas-ca parštaš-ca
 those-NOM.PL his-GEN weapon-NOM-and armor-NOM-and support-NOM-and
pa'riuuāras-ca vīṣante pa'ri ma'nīiaoīiāt drujaṭ
 surrounding.shield-NOM-and be.in.place-PR.3PL from of.the.spirit.world-ABL Lie-ABL
 'Those (the frauuaṣis 'protective spirits') of his are in place as a weapon, as armor, as a support,
 and as a surrounding shield from the Lie [which is] of the [unseen] world of the spirit ...'

From the above passages, Avestan appears to distinguish between the use of the *a*-stem and *i*-stem: *paršti-* is used for the body part,⁵⁷ while *paršta-* is used in the sense of a support or protective shield.⁵⁸ Although the stem *paršta-* is observed only in the two passages cited above, its nominative singular ending *-s* shows that it is to be taken as a masculine noun. Ved. *pr̥sthá-*, however, unequivocally shows neuter gender. The paucity of attestations of *paršta-* makes it difficult to draw any solid conclusions, but the masculine gender may be due to its apparent agential semantics.⁵⁹

One final point to take note of is that both Avestan and Pāli agree with regard to the fact that in these languages the *i*-stem is the form which is primarily used to express the unmarked body-part term 'back'. There is no way to tell if this represents an old feature stemming from some common source or if this occurred independently.

2.5. Conclusion

In this chapter, I have argued that the alternation between an *a*-stem and an *i*-stem which is seen in the Indo-Iranian terms for 'back' (Pā. *piṭṭha-/piṭṭhi-*, YAv. *paršta-/paršti-*, Sogd. *prc(h)*, Khot. *palšti-*), the Balto-Slavic terms for 'finger' (Lith. *pirštas*, Latv. *pir(k)sts*, OPr. *pīrsten*, OCS *prīstŭ*), and the Germanic terms for 'ridge of a roof' (ON *fyrst*, OHG *first*, OE *first*) all ultimately go back to PIE

⁵⁷ Note also that the Sogdian and Khotanese terms for the body part 'back' also go back to the *i*-stem.

⁵⁸ Yutaka Yoshida points out to me that this stem may underlie Sogd. *pršt'k(h)* 'equipment, armor' (Gharib 1995:289).

⁵⁹ Another possibility pointed out to me by Kazuhiko Yoshida is that the *a*-stem was still an adjective in Proto-Indo-Iranian that was later substantivized as a neuter in Vedic and a masculine in Avestan.

**pr_o-sth₂-ó-/*pr_o-sth₂-í-*. Furthermore, I proposed that the alternation in the stem-final vowel represents an old derivational pattern in which the *o*-stem originally functioned as an adjective meaning ‘prominent’ and the *i*-stem as an abstract meaning ‘prominence’. I then showed that the *a*-stem and *i*-stem forms for ‘back’ in Pāli and Young Avestan display a semantic and/or functional distinction that may have prevented one of the stems from being eliminated. In both Pāli and Avestan, the *i*-stem seems to be the unmarked term for ‘back’. The *a*-stem on the other hand has been relegated to use as a postposition in Pāli while it appears to function as a noun with agential semantics in Young Avestan.

CHAPTER THREE

Root-final Consonant Variation:

Av. *aēsma*- ‘firewood’ and *uruuād*- ~ *uruuāz*- ‘be joyful’ vs. Ved. *idhmá*- ‘firewood’ and *vrādh*-

3.0. Introduction

In this chapter, I will discuss two cases in which forms in Avestan show variation in their root-final consonant when compared to related forms in Vedic or Avestan. The first case involves the word for ‘firewood’ in Avestan and Vedic. The second case is the Avestan root *uruuād*- ~ *uruuāz*- ‘be joyful’ and the related Vedic root *vrādh*-.

3.1. Av. *aēs-ma*- ‘firewood’ vs. Ved. *idh-má*- ‘id.’

The words for firewood in Avestan and Vedic are both built with the suffix *-ma*; however, the root in Av. *aēs-ma*- ‘firewood’ ends in *-s* while the root in Vedic *idh-má*- ends in *-dh*.

3.1.1 ‘Firewood’ and the root **h₂eǵdʰ*- ‘kindle’ in Avestan and Iranian

Avestan *aēsma*- ‘firewood’ is a masculine noun and occurs only in Young Avestan texts in both the simplex and in the following compounds (glosses follow *AiW*):⁶⁰

- a. *aēsmaō.bər̥ti*- f. ‘offering of firewood’
- b. *aēsmaō.zasta*- adj. ‘with firewood in one’s hand’
- c. *dā’tiiō.aēsma*- adj. ‘with the prescribed firewood’
- d. *haḍa.aēsma*- adj. ‘together with firewood’

Outside of Avestan, there are numerous cognates in the Iranian languages for the ‘firewood’ word:

⁶⁰ Note also the phrase *dā’tiiō.aēsma buiiā* ‘May you be with the required firewood’ (Y. 62.2) (*AiW* 730). The *-i* in *aēsma* has often been compared with the well-known *cvi*-construction in Sanskrit (Bartholomae 1894–5:148 §263); de Vaan (2003:453ff.) however rejects this comparison, and on the basis of various manuscripts convincingly argues that the form should be read as a nom. sg. **dā’tiiō.aēsma* of the *a*-stem **aēsma*-.

Sogd. *zmy*,⁶¹ *zmw*,⁶² MP *ēsm/ēzm*, Khwar. (')*zm*, Yaghn. *īzm*, etc.⁶³

Bartholomae (*AiW* 27, 1894–5:21) reconstructs for *aēśma-* an Iranian pre-stage **aizzma-* and uses the form to illustrate how his sound law applies to the cluster *-d^h-s-*.⁶⁴ Here, Bartholomae mentions Ved. *édhas-* n. (AV+)—another word for ‘firewood’—in connection with *aēśma-*, which suggests that he considered an *s*-stem as the derivational basis. In modern notation, we may reformulate Bartholomae’s **aizzma-* as PIIr. **Hajd^h-z^h-ma-* < PIE **h₂eǵd^h-s-mo-*, in other words, an *s*-stem built to the root **h₂eǵd^h-* ‘kindle’ to which has been added the suffix *-mo*.^{65,66}

Bartholomae (1894–5:21) suggests that a similar *s*-stem, this time adding the thematic vowel *-a*, is behind the first member of the Young Avestan compound *aēza-xa(n)-*, the name of a mountain or mountain range (*AiW* 27f.): *aēza^o* < PIIr. **Hajd^h-z^h-a-* < PIE **h₂eǵd^h-s-o-*. If this derivation is correct, *aēza^o* may represent a possessive derivative **Hajd^h-z^h-a-* ‘with heat’ (Brent Vine, p.c.; cf. Kellens 1974:384: ‘le bois à brûler’) of the type Gk. ὄρος m. ‘rump’ < **h₃er-s-o-* ‘with an uprising’ (to the *s*-stem ὄρος n. ‘mountain’ < **h₃er-os-* ‘uprising’).⁶⁷

⁶¹ Sogd. *zmy* appears once in the manuscript of the Sogdian Dhūta-sūtra and was first correctly identified by MacKenzie 1976:40, 77; the later discovery of the Chinese original, which has 煩惱薪 ‘the firewood of *klesas*’, confirmed MacKenzie’s identification (Yoshida 1996). *skwy* ‘(type of tree used for) fuel’ and *skwy-cyk δr’wk* ‘fuel-wood’ (Reichelt 1928:58f.) are also used for ‘firewood’ in Sogdian.

⁶² Attested once; see Livshits 2008:286.

⁶³ Gharib 1995:462, Schmitt 1989:168; for a comprehensive list, see Rastorgueva & Edelman 2000:144.

⁶⁴ Bartholomae’s Law is an important sound law which states that a voiceless unaspirated consonant in the PIE cluster voiced aspirate + voiceless unaspirated consonant becomes voiced and aspirated in PIIr.: ex. PIE **mug^h-tó-* ‘dazed’ > PIIr. **mug^h-d^há-* > Ved. *mugdhá-* ‘id.’

⁶⁵ On *(-)aēśm-* as the regular outcome of **(-)aism-*, see de Vaan 2003:344, 355. For the typical YAv. change **-zm-* > *-sm-*, see Hoffmann & Forssman 2004:102.

⁶⁶ The *ma*-stem **Hajd^h-s-ma-* may go back to a more original **Hajd^h-s-man-* (Brent Vine, p.c.). We could assume *-ma* arose via **Hajd^h-s-mn-a-*, i.e., a possessive derivative ‘with heat, hot’ to an original neuter abstract **Hajd^h-s-man-* ‘heat’ (cf. **g^{wh}er-men-* ‘heat’ → **g^{wh}er-mn-o-* > Gk. θερμός ‘hot’), as *-Cmn-* sequences were under certain conditions reduced to *-Cm-* or *-Cn-* (Schmidt 1895:87ff., 92f.; Nussbaum 2010); cf. Ved. *drāghmā* (RV 10.70.4b) < **drāghmnā*, ins. of *drāghmán-* ‘length’. If this is the case, the form would have been an adjective that was later substantivized. Alternatively, at least in Vedic, *-man* stems often become *-ma* stems with no noticeable semantic change (see *dhárman-* n. ‘support, order, etc.’ [RV+] vs. *dhárma-* m. ‘id.’ [AV+]), so we may posit for PIIr. a form **Hajd^h-s-man-* ‘firewood’ which became PIIr. **Hajd^h-s-ma-* ‘id.’ through reanalysis of, e.g., an ins. **Hajd^h-s-m(n)-aH* in which the *-n-* was deleted and the form was reanalyzed as ending with the suffix *-ma*.

⁶⁷ Suffixation of the thematic vowel **-o* to athematic stems was a common way to derive possessive adjectives from substantives in PIE.

Apart from the words for ‘firewood’ and Young Avestan *aēza^o*, Iranian has no other clear representatives of the root **h₂eǵdʰ-* ‘kindle’. The situation in Vedic, however, is quite different. In Vedic, as discussed in the next section, there are a wide variety of forms built to this root.

3.1.2. **h₂eǵdʰ-* ‘kindle’ in Vedic

Beside a well-attested verbal system and root noun,⁶⁸ we find various nominal and adjectival derivatives of the root **h₂eǵdʰ-* ‘kindle’ in Vedic. See the examples below:

- a. *édha-* m. ‘firewood’ (RV+)
- b. *?édhas-* n. ‘id.’ (AV+) (see below)
- c. *idhmá-* m. ‘id.’ (RV+)
- d. *vīdhrá-* ‘clear’ (AV), n. ‘a clear sky’ (AV, KS)
- e. *edhatú-* ‘prosperity’ (RV+), deverbative to Ved. *édha-te* ‘thrive’

3.1.3. **h₂eǵdʰ-* ‘kindle’ and the Caland system

It is well known that the ‘kindle’ root built a rather robust Caland system⁶⁹ in Indo-European:⁷⁰

- a. *i*-stem as first member of compound: Gk. αἰθί-οψ ‘burnt-face, Ethiopian’ (Hom.+)
- b. *o*-stem adjective: Gk. αἰθός ‘shining’ (Pi.+), perhaps (substantivized) Ved. *édha-* m. ‘firewood’
- c. *ro*-adjective: Gk. ἰθαρός ‘cheerful’ (Alc.+), probably also Ved. *vīdhrá-* ‘clear’
- d. *u*-stem: OIr. *áed* ‘fire’
- e. *?s*-stem: Ved. *édhas-* n. ‘firewood’, Gk. αἶθος n. ‘burning heat, fire’ (see below)
- f. intransitive or stative/inchoative formation: Gk. αἶθομαι ‘burn, blaze’ (Hom.+), αἶθω ‘id.’

⁶⁸ For the root noun compounds *agnídh-* and *samídh-*, see Scarlata 1999:50ff.

⁶⁹ First noted in the late 19th century by the Dutch Indologist Willem Caland and later expanded upon by Ernst Risch, Calvert Watkins, Alan Nussbaum, and Jeremy Rau, the Caland system “consists of a certain subset of I[ndo-]E[uropean] roots that take a more or less well-defined subset of IE nominal suffixes that stand in a close derivational relationship and can be thought of as mutually implying one another” (Rau 2009:70). The most recent work on the Caland system has extended the system to include verbal forms such as denominative statives, inchoatives, and various factitive formations. The nominal, adjectival, and verbal derivatives to the root **h₂eǵdʰ-* ‘kindle’ given above are examples of alternations commonly observed in the Caland system.

⁷⁰ See Nussbaum 1976:35f., Rau 2009:147, 150, 154, Stüber 2002:94ff., 229.

(Pi. O.7.48, S. Aj.286), Ved. *édha-te* ‘thrive’ (< ‘shine, glow’) (RV+)

g. factitive formation: Gk. αἶθω ‘light up, kindle’ (Hdt. A.+); Ved. *indhé* ‘cause to light up (of fire)’ (RV+)

3.1.4. Problems with the alleged *s*-stems to **h₂ejd^h*- ‘kindle’

Although acrostatic⁷¹ and proterokinetic⁷² *s*-stems are central members of the Caland system, the relation of the above *s*-stems Vedic *édhas*- ‘firewood’ and Greek αἶθος ‘heat’ to the system is problematic. One problem is the semantics—*édhas*- means ‘firewood’ while αἶθος means ‘heat’.⁷³

αἶθος ‘burning heat, fire’ is attested relatively sparsely and late.⁷⁴ Nussbaum (1976:47) therefore argues that the Greek form is not part of the Caland system but is deverbative to αἶθω ‘kindle’.⁷⁵

For *édhas*-, Nussbaum (1976:47) states that it is “post-RV and the assumption that it too is deverbative (to *inddhé* ‘ignites’) neatly explains the semantic divergence between it and αἶθος.” Somewhat similarly, Stüber (2002:95f.) argues that while *édhas*- and αἶθος may originate from an actual PIE *s*-stem **h₂ejd^h-os-*, the semantics of this stem—which she sees as a *nomen rei actae* ‘what one kindles’—show that it does not belong in the Caland system but is deverbative.⁷⁶

The relation Ved. *édhas*- : Gk. αἶθος is formally impeccable and has thus often invited comparison; however, the existence of a stem *édhas*- for Vedic is actually not guaranteed. In his word index to the Atharvaveda, Whitney (1881:76) cites the following two passages for the alleged *s*-stem:

⁷¹ In acrostatic forms, the accent remains on the root throughout the paradigm.

⁷² In proterokinetic forms, the accent is mobile, shifting from the root to the suffix in a regular manner.

⁷³ Stüber 2002:95f., 229.

⁷⁴ αἶθος is found in Apollonios Rhodios, *Argonautica* 3.1304; *Orphica* L. 174.

⁷⁵ As shown by Rau (2009:74), the Caland system has as its core “property concept” adjectives which regularly substitute “a certain subset of suffixes when making comparative and superlative, adjective abstract, compound, and verbal forms.” Most significantly, the *s*-stems which belong to the Caland system are not deverbative but deadjectival. Because *s*-stems may be derived from both verbs and adjectives, their membership in the Caland system can sometimes be difficult to judge.

⁷⁶ The term “*nomen rei actae*” refers to deverbative nouns with a resultative sense. The *s*-stems which belong in the Caland system are deadjectival and do not have a resultative sense.

(1) (AV 7.89.4 [prose])

<i>édho</i>	'sy	<i>edhiṣyá</i>	<i>samíd</i>	<i>asi</i>	<i>sám</i>
firewood-NOM	be-PR.2SG	be.prosperous-PREC.1SG	fuel-NOM	be-PR.2SG	altogether
<i>edhiṣya</i>		<i>téjo</i>	'si	<i>téjo</i>	<i>máyi dhehi</i>
be.prosperous-PREC.1SG		brightness-NOM	be-PR.2SG	brightness-ACC	me-LOC put-IMPV.2SG

'Fire-wood art thou, may I be prosperous; fuel art thou, may I altogether prosper; brightness art thou, put thou brightness in me' (trsl. Whitney 1905:454)

(2) (AV 12.3.2)

<i>tāvad</i>	<i>vāṃ</i>	<i>cákṣus</i>	<i>tāti</i>	<i>vīṛyāṇi</i>
so.much	your-GEN	sight-NOM	so.many	powers-NOM.PL
<i>tāvat</i>	<i>téjas</i>	<i>tatidhā</i>	<i>vājināni</i>	
so.great	brilliancy-NOM	so.many-fold	energies-NOM.PL	
<i>agnīḥ</i>	<i>śārīraṃ</i>	<i>sacate</i>	<i>yadā</i>	<i>édho</i>
Agni-NOM	body-ACC	fasten-PR.2SG	when	fuel-NOM
<i>adhā</i>	<i>pakvān</i>	<i>mithunā</i>	<i>sám</i>	<i>bhavāthaḥ</i>
then	cooked-ABL	paired.ones-VOC	PVB	come.into.being-SUBJ.2DU

'So much [be] your sight, so many your powers, so great your brilliancy, so many-fold your energies; Agni fastens on the body when [it is his] fuel (?); then, O paired ones, shall ye come into being from what is cooked' (trsl. Whitney 1905:683)

In these two passages, the alleged *s*-stem *édhas*- appears both times in the form *édho*, which is the sandhi form of *édhas*. This *édhas* is ambiguous because it can represent either the m. stem *édha*- (see Section 3.1.2. above) + the m. nom. sg. ending -s or the n. stem *édhas*- + the n. nom. sg. ending -ø. For (1) above, the 14th century Indian commentator Sāyaṇa glosses *édhas* with *iddhas* 'kindled' and *dīptas* 'burning',⁷⁷ showing that he interpreted *édho* as m. nom. sg. of *édha*-. For (2) above, Sāyaṇa appears not to have commented on this stanza. The form here is very difficult to determine because most of the phrase beginning with *yadā* is elided. Nevertheless, a nom. sg. seems to be a likely interpretation, and, as Debrunner (*AiG* III:35) suggests, we can take this as nom. sg. of the stem *édha*-. An *s*-stem *edhas*- does seem to be attested (see *PW* 1096), however only rather sparsely in much later texts (a few examples mostly in the *Smṛti* and *Purāṇa* literature) and lexical literature. Of the Vedic forms cited for *édhas*- (see *VWC* I.2:803a and footnote a. "= *édha*-"), all are either quotes of AV 7.89.4 above or the ambiguous nom. sg. form *édhas*—there are no examples of, for example, an ins. sg. **édhasā* that would clearly decide the issue. The fact that all the supposed examples of an *s*-stem *édhas*- in Vedic are in the form of the ambiguous *édhas* makes them highly suspicious and suggests that they may in fact be better interpreted as nom. sg. *édhas* to the masculine stem *édha*-, as

⁷⁷ *iddhas* and *dīptas* are unambiguous m. nom. sg. forms. The neuter would be *iddham* and *dīptam*.

this stem is attested since the RV. The *s*-stem that appears much later may have gotten its start in an ambiguous m. nom. sg. *édhas*, especially where it occurred in close proximity with *téjas*-, and appears to have remained a rather marginal stem.

3.1.5. An older layer of *s*-stems to **h₂eǵdʰ*- ‘kindle’

While we are justified in leaving Ved. *édhas*- and Gk. αἶθος out of our discussion of Caland system forms, there is an older layer in which an *s*-stem may have played a role in the system⁷⁸—here we return to the Avestan form *aēsma*-. An old *s*-stem **h₂eǵdʰ*-*os*- appears to have formed the basis for a number of derivations in Indo-European:

- a. **h₂eǵdʰ*-*s*-*mo*-: Av. *aēsma*- ‘firewood’, perhaps also Lith. *iesmẽ* ~ *iesmė* ‘Fracht, Holz zum einmaligen Einheizen des Ofens’ (*IEW* 12, *LEW* 182, *LKŽ*)
- b. **h₂eǵdʰ*-*s*-*on*-: OIc. *eisa* ‘glowing embers’ (Stüber 2002:95, *IEW* 12)
- c. **h₂eǵdʰ*-*s*-*to*-: OE. *āst* ‘kiln (for drying hops or malt)’ (Nussbaum 1998:527)
- c'. *u*-stem abstract to **h₂eǵdʰ*-*s*-*to*-: Lat. *aestus* ‘heat’ (Nussbaum 1976:47, 1998:527)
- d. **h₂eǵdʰ*-*s*-*teh₂t*-: Lat. *aestās* ‘summer’ (Nussbaum 1976:47, differently *EDL* 28)

Av. *aēsma*- (and perhaps Lith. *iesmẽ* ~ *iesmė*) fit neatly into this pattern of derivation and support Bartholomae’s view of the prehistory of the Avestan form. We can now turn to another important piece of the puzzle: How does Ved. *idhmá*- fit into this picture?

3.1.6. YAv. *aēsma*- vs. Ved. *idhmá*-

Before going into more detail, let us first note the similarities and differences between *aēsma*- and *idhmá*-. Both have apparently identical semantics and gender, both appear to be built with a suffix *-ma*, and—as we will see below—both are used in identical or nearly identical contexts and collocations. While Avestan has the full grade of the root and inserts an *-s*-, Vedic shows zero grade and no *-s*-.

⁷⁸ See Nussbaum (1976:47): “If there is a real Caland *-es*- stem [= *s*-stem] here at all it is perhaps to be seen in the *aidh*-*s*- of forms like L[at]. *aestas*, *aestus* where we are on somewhat safer ground because of the lack of a verb from **h₂eǵdʰ*- beside them.”

One way to treat these two words would be to view them as fundamentally separate formations: *aēsma-* is an old *s*-stem extended with *-ma*, while *idhmá-* is a simple substantive in *-ma* built directly to the root *idh-*. Ved. *idhmá-* is one of the most common words for ‘firewood’—it is well-attested since the RV (see VWC I.2:802ab) and continued into Pāli as *idhuma-*. On the Iranian side, the word is very common for ‘firewood’ in many of the languages, as noted at the beginning of this chapter. Firewood was surely used daily for cooking and ritual purposes, so why do Avestan and Vedic appear to look both so similar and so different with regard to such a basic vocabulary item? Below, I will show that the Vedic and Avestan forms are more closely related than they appear. Let us first look more closely into the environments in which these words occur.

Both *idhmá-* and *aēsma-* are used in collocations with the verbal root *bhar-* ‘to carry’. They also appear in collocations with the related Ved. *barhís-* ‘a type of grass spread over the sacrificial ground’ and Av. *bar³sman-* ‘id.’ (Schlerath 1968:164b, *EWAia* I:191):

a. collocations with *bhar-*

- *idhmá-bhṛti-* ‘carrying/offering of firewood’ (RV 6.20.13d) : *aēsmō.bar³ti-* ‘id.’ (P. 24)
- *idhmám bhar-* ‘carry firewood’ (RV 1.94.4a, 4.2.6a, 4.12.2a) : *aēsmam bar-* ‘id.’ (Y. 62.9)

b. collocations with Ved. *barhís-*, Av. *bar³sman-*

- *barhíḥ ... idhmá* (RV 8.45.1b–2a), *idhmáh ... barhíṣi* (RV 10.90.6d–7a)
- *idhmā-barhíḥ* (MS, TS; cf. VWC I.2:802bc)
- YAv. *aēsma(ca) bar³sma(ca)* (see *AiW* 27)

In contrast, the other Vedic word for ‘firewood’ —*édha-*—which occurs once in Book I (1.158.4c) and once in Book X (10.86.18d), is not attested with the verb *bhar-* or *barhís-*. The exact overlaps in semantics, suffix, and context suggest that *idhmá-* and *aēsma-* may have had a close derivational relationship to each other.

3.1.7. The derivational histories of YAv. *aēsma-* and Ved. *idhmá-*

While an *-s-* is not visible in *idhmá-*, it may have been present in the derivational history of the word. Interestingly, this view was already considered by Debrunner (*AiG* II.2:750), who mentions

that *idhmá-* may come from “ig. *idh-mo-* oder *idh-s-mo-*.” PIIr. **Hajd^h-z^h-ma-* (i.e., **Hajd^h-s-ma-* after the application of Bartholomae’s Law) would regularly give Av. *aēsma-* by the deletion of the dental stop in the cluster *-d^hz^h-* and Ved. **edhmá-* by the deletion of *-z^h-*.⁷⁹

There are two ways to deal with the different vocalism of the root in Vedic and Avestan.⁸⁰ One approach is to assume that a pre-Vedic **edhmá-* actually existed and—because the *s*-stem was no longer visible—was reanalyzed synchronically as a root with the suffix *-ma* directly attached. Roots of this structure with *-ma* have exclusively zero grade in Vedic,⁸¹ so a pre-Vedic **edhmá-* would most likely be reduced to *idhmá-*. Another more attractive approach is to assume that the zero grade of the root in Vedic is etymological and directly reflects the ablaut of the underlying proterokinetic *s*-stem. It is well known that *s*-stems as the base of derivatives show both full grade root + zero grade suffix (Ved. *taviṣá-* ‘powerful’ < **taṷH-s-á-* ← Ved. **távas-* n. ‘power’ < **táṷH-as-*) and zero grade root + zero grade suffix (Ved. *śūṣá-* ‘powerful (of warriors, weapons, etc.)’ < **śuH-s-á-* ← Ved. *śávas-* n. ‘power’ < **śáṷH-as-*). If the *s*-stem at the base of the ‘firewood’ words behaved in a similar fashion, Av. *aēsma-* would reflect **Hajd^h-s-ma-*, with full grade root + zero grade suffix, while Ved. *idhmá-* would reflect **Hid^h-s-ma-*, with both zero grade root and suffix.⁸² Deriving both Av. *aēsma-* and Ved. *idhmá-* from an underlying *s*-stem provides a satisfying way to explain both the similarities in semantics and usage and also the difference in root vocalism.

3.1.8. Summary

We began with Bartholomae’s reconstruction **Hajd^h-z^h-ma-* for YAv. *aēsma-*, a form in which the suffix *-ma* has not been added directly to the root but to an underlying *s*-stem. Evidence in Indo-Iranian for the simple *s*-stem to which *aēsma-* was built was carefully examined, and I argued that there are no compelling reasons to assume an *s*-stem *édhas-* for Vedic. The *s*-stem underlying the

⁷⁹ For the regular loss of dentals before sibilants in Iranian, cf. Av. *masiia-* ‘fish’ vs. Ved. *mátsya-* ‘id.’ < PIIr. **matsja-* (Hoffmann & Forssman 1996:98). On the regular loss of voiced sibilants in Indo-Aryan, see Kobayashi 2004:49ff.

⁸⁰ The *i-* in Ved. *idh-má-* shows that the root is in zero grade (PIIr. **Hid^h-*), while the *aē-* of Av. *aēs-ma-* represents a full grade root (PIIr. **Hajd^h-*).

⁸¹ I.e., roots ending in consonants; see *rukma-* ‘ornament’ (AiG II.2:750).

⁸² Note the ablaut grades in *s*-stem derivatives like Ved. *tīkṣṇá-* adj. ‘sharp’ (to *téjas-* n. ‘sharpness’), *jyótsnā-* f. ‘moonlit night’ (to *jyótiṣ-* n. ‘light’), *deṣṇá-* n. ‘gift’, etc.

Proto-Indo-Iranian form **Hajd^h-z^h-ma-* should rather be seen as belonging to a group of old Indo-European *s*-stem derivatives such as **h₂ejd^h-s-on-* (> OIc. *eisa* ‘glowing embers’), **h₂ejd^h-s-tu-* (> Lat. *aestus* ‘heat’), etc. Further, I argued that the identical gender and semantics of *idhmá-* and *aēsma-* and also the similar contexts in which they appear point to a closer historical relationship between these forms than may appear from their surface differences. Specifically, I argued that, like YAv. *aēsma-*, Ved. *idhmá-* is not built with the suffix *-ma* directly added to the root but to an underlying *s*-stem. As *s*-stem derivatives may show full or zero grade in the root, positing an *s*-stem as the derivational basis also provides a satisfying way to explain the difference in vocalism between the Vedic and Avestan forms.

3.2. Ved. *vrādh-* vs. Av. *uruuād-* ~ *uruuāz-*⁸³

3.2.1. Av. *uruuād-* ~ *uruuāz-*⁸⁴

⁸³ See the Appendix for all of the passages with these roots.

⁸⁴ I have not been able to locate the earliest reference (it must have appeared before 1884 as Geldner 1885:586 refers to Bartholomae), but it appears that it was Bartholomae (*AiW* 1543f.) who first connected Av. *uruuād-* and *uruuāz-* by positing for the former a root-final consonant *-d^h* whereby the *-z* of the latter can be explained as < **-dz^h* < **-d^h-s*. Ved. *vrādh-*, however, is not explicitly mentioned in his dictionary.

Earlier views—now generally rejected or ignored—on these roots can be briefly mentioned here. For Ved. *vrādh-*, Pischel argued for the following semantics and their development: ‘rauschen, tosen, brüllen (vom Flusse, vom Stiere)’ > ‘glänzen, strahlen’ > ‘großsprechen, prahlen’ (Pischel & Geldner I:218ff.). In his early *Studien zum Avesta*, Geldner (1882:39ff.) connected Av. *uruuāz-* with the root in Ved. *bráhman-* (: OAv. *uruuāz^hman-*)! He later (Geldner 1885:586) gave up this idea.

Bartholomae (*AiW* 1542, s.v. *uruuāxšant-*, with literature) states that a form *uruuāxš-* is related to *uruuād-* and *uruuāz-*, but this idea is based on assumptions that are highly problematic. According to Bartholomae (*AiW* 1542), *uruuāxš-* ‘froh, freudig’ appears in the proper name *uruuāxšaiia-* ‘der Freude bringende’, in an alleged active present participle *uruuāxšant-* ‘froh machend, beglückend’, and as the first member of the compounds *uruuāxš.ay^hhā-* ‘frohgemut’ and *uruuāxš.uxti-* ‘freudiger Ruf, Freudengeschrei’. On the various etymologies—none of them ultimately compelling—proposed for the name *uruuāxšaiia-*, see Mayrhofer (1979:§321). *uruuāxšat* at Y. 44.8, which Bartholomae interprets as a n. acc. sg. of an active present participle *uruuāxšant-*, is actually a 3sg. *s*-aorist subjunctive to the root *uruuag-* ‘go forth’ (Insler 1975:69, Humbach 1991:159, Cheung 2007:438). *uruuāxš.ay^huha* at Y. 62.10 is interpreted by Bartholomae (*AiW* 1542) as a m. ins. sg. to an apparent bahuvrihi compound *uruuāxš.ay^hhā-* ‘frohgemut’. However, the passage unfortunately does not provide any clues as to what *uruuāxš^o* might mean: Y. 62.10 (= Vd. 18.27) *və^ozūuatica haxšōit ay^huha, uruuāxš.ay^huha gaiia jiyaēša* ‘May invigorating vitality(?) (*ay^hhā-* f.) accompany [you]; may you live with a life (*gaiia* m. ins.) whose vitality(?) is *uruuāxš*’. For *uruuāxš.uxti-*, Kellens & Pirart (1990:312) give the gloss ‘contentant le mot *uruuāxš*’ and mention that *uruuāxš* is without an etymology. As a connection between *uruuāxš-* and the roots *uruuād-* and *uruuāz-* has not been convincingly demonstrated, I will leave *uruuāxš-* out of the following discussion.

The second case of root-final consonant variation involves the difficult Avestan roots **ruuāḍ-* ‘be pleased’ (: Ved. *vrādh-*) and **ruuāz-* ‘id.’⁸⁵ Although there is no detectable semantic distinction between these two roots, it has been suggested that the *-z-* in **ruuāz-* may be due to an “s-Erweiterung” with originally ingressive semantics (thus < PIE **-sḱe-*) to the root **ruuāḍ-*.⁸⁶ In this approach, Av. **ruuāḍ-* (and Ved. *vrādh-*) with root-final *-d*⁸⁷ would then reflect PIr. **uraHd^h-*, while Av. **ruuāz-* would reflect PIr. **uraHd^h-z^ha-* < (as if) PIE **uReHd^h-sḱe-*.⁸⁸

3.2.1.1. Attested forms of **ruuāḍ-* and **ruuāz-*

A rich array of nominal and verbal forms are built to **ruuāḍ-* and **ruuāz-* (unless otherwise noted, glosses follow *AiW*):

a. nominal forms:

- OAv. **ruuāḍah-* n. ‘joy’ (1x: Y. 43.2)
- OAv. **ruuāḍiiaḥ-* adj. ‘more joyful’ (1x: Y. 34.6)
- OYAv. **ruuāzišta-* adj. ‘most joyful’ (5x: Y. 17.11 [= 59.11], 36.2 [2x], 49.8, Yt. 13.85)
- OAv. **ruuāz^əman-*, YAv. **ruuāsman-* ³adj. ‘delightful’; n. ‘joy’ (4x: Y. 10.8, 32.1, P. 37 [38], Vyt. 50)
- OAv. **ruuāzā-* f. ‘joy’ (*AiW* 1545: **ruuāzā* [Y. 30.1] = nom. sg., **ruuāziiā* [Y. 36.2] = ins. sg.)
 - OAv. **ruuāzi-* ‘joy’ (Insler 1970:197: **ruuāzā* [Y. 30.1] = loc. sg., **ruuāziiā* [Y. 36.2] = ins. sg.)⁸⁹
 - OAv. **ruuāzī-* f. ‘exultation’ (Kellens & Pirart 1990:313: **ruuāziiā* [Y. 36.2] = ins. sg.)⁹⁰

b. verbal forms:

- perfect (active):
- subjunctive: OAv. *vaorāzaθā* ‘you (pl.) will be pleased’ (1x: Y. 50.5)

⁸⁵ Note that word initial **ur-* regularly undergoes metathesis to **ru-* in Avestan (Hoffmann & Forssman 2004:87). This sequence **ru-* is then preceded by an epenthetic vowel *u* to indicate labialization (Hoffmann & Forssman 2004:51f.).

⁸⁶ *AiW* 1544, Kümmel 2000:623, Hoffmann & Forssman 2004:95, Cheung 2007:438.

⁸⁷ Note that the Proto-Indo-Iranian distinction between voiced aspirated and unaspirated stops was lost in Iranian but preserved in Vedic.

⁸⁸ As in the case of *aēsma-* above, the *-d^h-* in the cluster *-d^hz^h-* would be eliminated.

⁸⁹ Insler is followed by Hoffmann 1975:393 and Narten 1986:147 n. 48.

⁹⁰ Kellens & Pirart 1990:313: **ruuāzā* (Y. 30.1) = present indicative 1sg.; tentatively followed by Cheung 2007:438.

- indicative: YAv. *+vaorāza* ‘is pleased’ (1x: N. 84)
- simple thematic present (middle):
 - indicative: YAv. *uruuāzənte* ‘prosper’ (1x: FrD. 7)
 - participle: YAv. *uruuāzəmna-* ‘joyful’ (2x: Yt. 10.34, 10.73)
- simple thematic present (active):
 - injunctive/imperfect: YAv. *uruuāθən* ~ *uruuāsən* ‘prospered’ (1x: Yt. 13.93 [= Yt. 17.18])

3.2.1.1.1. The manuscript variants *uruuāθən* and *uruuāsən*

For the simple thematic active present found at Yt. 13.93 and 17.18, Geldner’s edition has *uruuāsən*, but the manuscripts show the two variants *uruuāθən* and *uruuāsən*.⁹¹ To explain the form with *-s-*, Bartholomae (*AiW* s.v. *uruuād-*) remarks that an earlier inchoative **uruuāzən* became *uruuāsən* “durch frühen Ausgleich mit den übrigen Inkohativen,” comparing the Young Avestan inchoative stem *xšufsa-* ‘tremble’ in which the voiceless sequence *-fs-* appears for the voiced sequence **-βž-* (cf. Ved. *kṣubh-* ‘tremble’). In the *Grundriss*, Bartholomae (1894–5:§319) states that the *-s-* in *uruuāsən* stands for a sequence *-θs-*.

The developments leading to Young Avestan *xšufsa-* ‘tremble’ actually don’t parallel those supposed for *uruuāsən*. Whereas the Proto-Indo-European sequence **-bʰs-* regularly gives an Old Avestan voiced cluster *-βž-* and later a Young Avestan voiceless cluster *-fš-*, note that the consonant before *-s-* was never lost during the course of these developments. In contrast, the Proto-Indo-European sequence **-dʰs-* does not give an Old Avestan *-dz-* that could later develop to Young Avestan *-θs-* and finally *-s-*, as dental stops before sibilants were lost before the attestation of Old Avestan (Hoffmann & Forssman 2004:98). Synchronically, the dental stop behind *-z-* in **uruuāzən* would not be visible, and intervocalic *-z- > -s-* is not a known sound change.

Kellens (1984:112 n. 4) notes that due to the correspondence with Vedic *vrādh-*—with its root-final *-dʰ*—the reading *uruuāθən* is preferable to *uruuāsən*.⁹² The markedness of theta makes it more reasonable to assume that an original theta was mistakenly written or heard by a scribe as a sibilant

⁹¹ Yt. 13.93: *uruuāθən* F1, Pt1, E1, L18, P13; *uruuāsən* Mf3, K13.38.14, H5, Lb5, J10. Yt. 17.18: *uruuāθən* F1, Pt1, E1, H3; *uruuāsən* J10.

⁹² Cf. the possibly dialectal YAv. substitution of *-δ-* with *-θ-* (Hoffmann & Forssman 2004:97f.).

rather than the reverse. Although I have not yet conducted a comprehensive survey, I know of at least one parallel in which -s- is written for -θ-: *mahrkasəm* (Aog. 48) vs. *mahrkaθəm* (Yt. 18.6) (Bartholomae 1894–5:§278 n. 1).

It is for these reasons that the reading *uruuāθən*—with theta—should be given more weight.

3.2.1.2. Distribution of Av. *uruuād-* ~ *uruuāz-*

Looking over the forms in Section 3.2.1.1. above, a picture of the distribution between Av. *uruuād-* and *uruuāz-* emerges. It is clear that *uruuāz-* already existed beside *uruuād-* in Old Avestan. *uruuād-* is much rarer—appearing only three times in the Old Avestan *s*-stem *uruuādah-*, the Old Avestan comparative *uruuādiiah-*, and the Young Avestan injunctive *uruuāθən*. Elsewhere we find *uruuāz-*. The general impression one gets from this distribution is that *uruuād-* appears to belong to an older layer, while the variant with -z appears to have become generalized at a later stage. It is thus perplexing that *uruuāθən*, a form ultimately reflecting the root *uruuād-*, appears in Young Avestan, especially when we consider that elsewhere verbal forms are exclusively built to *uruuāz-*. *uruuāθən* is also anomalous in that it is active while the other simple thematic presents are all middle. The reason for these anomalies is not clear to me.⁹³

3.2.1.3. Traces of Caland system behavior

Traces of Caland system behavior are visible for this root due to the attestation of the OAv. *s*-stem *uruuādah-*, the OAv. comparative *uruuādiiah-*, and the *man*-stems OAv. *uruuāz²man-* and YAv. *uruuāsman-*.

3.2.1.3.1. *uruuādiiah-* and *uruuāzišta-*

Considering the Caland system context, the comparative–superlative relation *uruuādiiah-* : *uruuāzišta-* is quite striking. If these forms are both part of a tight-knit Caland system, why do we

⁹³ Yutaka Yoshida points out to me that the meaning ‘prosper’ for *uruuāθən* (Yt. 13.93 [= Yt. 17.18]) as opposed to ‘be joyful’ suggests that this root is independent and perhaps unrelated to the other forms. In this context, *uruuāzənte* ?‘prosper’ (FrD. 7) is also curious.

find *-d-* in one form and *-z-* in the other? The apparent relation **ruuā'diiah-* : **ruuāzišta-* is, however, a mirage.

In an insightful paper on the Old Iranian superlatives in *-išta-*, Tucker (2009) points out that the deverbal *bairišta-* type superlatives appear to be isolated when compared with the Caland-type adjective-based superlatives. The *bairišta-* type superlatives show no consistent pattern of correspondence with a positive nominal formation, and—significantly—there are no roots which form both a superlative in *-išta* and a comparative in *-iiah*. As **ruuāzišta-* has no corresponding nominal positive nominal formation, and as the root **ruuāz-* appears to be primarily used in verbal forms, it is likely that the superlative form **ruuāzišta-* does not belong to the Caland system but is deverbative to the root **ruuāz-*, specifically the simple thematic present stem seen in **ruuāzəmna-*.

3.2.1.3.2. Interpretation of **ruuāz²man-*

Another problematic issue is the interpretation of **ruuāz²man-*. While **ruuāz-* appears primarily in verbal and deverbal forms, we find **ruuād-* primarily in older layers, and with Caland alternations. Because *man-* stems were a productive participant in the Caland system in Indo-Iranian (Rau 2009:74), **ruuāz²man-* need not be deverbal to **ruuāz-*, but may belong together with the *s-* stem **ruuādah-* and the comparative **ruuā'diiah-*. If so, it may represent **uraHdʰ-s-man-*, a form derived from the *s-* stem **ruuādah-*. Such a form would be parallel in formation to Lat. *lūmen* n. 'light' (< PIE **leuk-s-men-* n. 'light') and Av. *raoxšna-* adj. 'shining' (< PIE **leuk-s-[m]n-ó-* adj. 'with light') ← Av. *raocah-* n. 'light' (< PIE **léuk-os-* n. 'id.').

3.2.1.4. Approaches to explaining the *-z* of **ruuāz-*

As we saw above, one approach to explaining the *-z* of **ruuāz-* is to connect it with the present *sk̑e-* suffix. One obvious problem with this approach is that in Old Avestan, zero grade of the root is regular for this type, excepting the present stem *yāsa-*, which is a laryngeal final root that resisted being reduced to the zero grade (Beekes 1988:172). If **ruuād-* formed a *sk̑e-* present, we might expect a zero grade Av. **var²za-* < **urHdʰ-śca-* (cf. OAv. *dar²ga-* < PIE **dʰh₁gho-*). If the evidence of

uruuāθan is to be taken seriously, a perhaps more serious drawback to this approach is that there are no other Avestan examples where a simple thematic present exists beside a *sk̥*-present.

Another approach, advocated by Kellens & Pirart (1990:299, 312f.), is to view the root-final *-d* and *-z* as reflecting two different original root final consonants. According to Kellens & Pirart, the first group with etymological aspirated **-dʰ* includes Av. *uruuād-*, YAv. *ərəδβa-* ‘upright/vertical’, Ved. *ūrdhvá-* ‘upright’, and Ved. *vrādhant-*. In their view, OAv. *uruuādah-* does not mean ‘joy’, but ‘upright/vertical position’, and *uruuāīdīah-* not ‘more joyful’, but ‘more upright/vertical’. A second group with etymological palatal **-ǵ*⁹⁴ includes Av. *uruuāz-*, to which Kellens & Pirart give the meaning ‘please someone (dat.) with something (acc./ins.)’. Included here are all of the other Avestan forms of this root with *-z* in addition to Ved. *úrj-* ‘nourishment’, etc. The two groups are shown below:

a. group with etymological **-dʰ* :

- Av. *uruuād-* with YAv. *ərəδβa-* ‘upright/vertical’, Ved. *ūrdhvá-* ‘upright’, *vrādhant-*
- OAv. *uruuādah-* not ‘joy’, but ‘upright/vertical position’
- OAv. *uruuāīdīah-* not ‘more joyful’, but ‘more upright/vertical’

b. group with etymological **-ǵ* :

- Av. *uruuāz-* ?‘please someone (dat.) with something (acc./ins.)’
- OAv. *uruuāzī-* f. ‘delight’, *uruuāzišta-* ‘very delightful’, *uruuāzəman-* ‘pleasure’
- OAv. *varəz-* f. ?‘pleasure’ in *+varəzī* (Y. 45.9)⁹⁵
- OAv. *varəzaiiant-* ?‘pleasing’ (Y. 45.4)⁹⁶
- Ved. *úrj-* ‘nourishment’, *úrjáyant-* ‘be strong; strengthen’

While this approach does explain the variation in the root final consonant, it is problematic in other respects. Reading *darəgō.jiātōiš uruuādanhā* (Y. 43.2) as ‘with the upright/vertical position of

⁹⁴ PIE **ǵ* regularly gives Av. *z*.

⁹⁵ On the various interpretations of *+varəzī* in this passage, cf. *AiW* 1379: inf. ‘zu wirken’, Insler 1975:77: loc. ‘in effectiveness’, Humbach 1991:166: loc. ‘in freshness’.

⁹⁶ On the various interpretations of *varəzaiiant-* in this passage, cf. *AiW* 1378: ‘wirkend’, Insler 1975:75: ‘effective’, Humbach 1991:164: ‘refreshing’.

long life’ seems odd, as does reading *uruuā’diiā stauuas* (Y. 34.6) as ‘praising you even in a more upright/vertical manner’. The traditional interpretation of ‘joy’ for these passages seems more appropriate:

(3) (Y. 43.2)

vīspā aiiār̥ dar̥gō.jiiātōiṣ̥ uruuādanhā
all-ACC.PL days-ACC.PL long.life-GEN joy-INS

- ‘(Moreover, [I wish] for this person the best of all things, that by which a man might place a person of good purpose in happiness: to be understanding) all his days, with the joy of long life’ (trsl. Insler 1975:61)
- ‘(And may the man in [the domain of] comfort obtain for himself the best of all [things], [namely] comfort ... [as well as] the blessings of good thought which Thou grantest through truth), on all days, along with the joy of a long life’ (trsl. Humbach 1991:151)
- ?‘with the upright position of long life’

(4) (Y. 34.6)

yaṭhā vā yazəmnascā uruuā’diiā stauuas
so.that you-ACC.PL worshipping-NOM more-joyfully-NOM praising-NOM
aiienī paītī
approach-PR.SUBJ.1SG PVB

- ‘(give ye that sign to me through every change of this world), so that I shall very happily approach all of you, as I worship and praise’ (trsl. Insler 1975:55)
- ‘(make that clear to me on all days of this existence), so that I may come to meet You again, worshipping and praising [You even] more joyfully’ (trsl. Humbach 1991:141)
- ?‘praising [you even] in a more upright/vertical manner’

Kellens & Pirart’s meaning for *uruuāz*- ‘please someone (dat.) with something (acc./ins.)’ may pass for Y. 50.5, but it does not work well for N. 84, as there is no dative in this passage. The traditional interpretation ‘be delighted/pleased’ works for both passages and seems more appropriate:

(5) (Y. 50.5)

hiiat̥ yūṣmākāi mṇrānē vaorāzaṭhā aḥbi.dar̥štā āuuīṣiiā auuanhā
because your-DAT poet-DAT be.pleased-PF.SUBJ.2PL visible-INS manifest-INS help-INS

- ‘Yes, if ye shall be pleased with your prophet, reveal Thyself with visible help’ (trsl. Insler 1975:99)
- ‘since You take delight [in helping] Your disciple with visible, manifest help’ (trsl. Humbach 1991:184)
- ‘da ihr euch freuen werdet an sichtbarer, offenbarer Hilfeleistung für euren Dichter’ (trsl. Kümmel 2000:623)
- ?‘because you will please your disciple with visible, manifest help’

(6) (N. 84)

āuuōiia +dāθrēm daḍā'ti spitama zaraθuštra yeḥhe dāθrahe
 woe gift-ACC give-PR.3SG Spitama-VOC Zarathuštra-VOC whose-GEN gift-GEN
dā'ti +nōiṭ +hauuō "ruua +vaorāza
 giving-INS not own-NOM soul-NOM be.pleased-PF.3SG

- ‘Wehe [dem, der] eine Gabe gibt, ..., dessen eigene Seele sich am Geben der Gabe nicht freut’ (trsl. Kümmel 2000:623)
- ‘Woe to [him who] gives a [pious] gift, Spitama Zarathustra, whose own soul is not delighted by the giving of the [pious] gift’ (trsl. Kotwal & Kreyenbroek 2003:281)
- ‘?... whose own soul does not please [someone/itself?] ...’

Because of the problems the above approaches entail, I would like to argue for a different approach. While the interpretation of Avestan passages is often extremely difficult, I believe, like Bartholomae, that the semantic similarity and distribution of *"ruuād-* and *"ruuāz-* points to a relationship between the two roots in which *"ruuād-* was original and *"ruuāz-* was secondary. Unlike Bartholomae’s view, however, the *-z* in this secondary root *"ruuāz-* most likely had its origin in a sibilant other than that in the present *sk̥-*suffix. An *s*-stem to the root *"ruuād-* is securely attested in OAv. *"ruuādah-*, and the evidence of the comparative OAv. *"ruuā'diiah-* and also likely *"ruuāz³man-* strongly suggest that the root participated in the Caland system. In *"ruuāz³man-*, which we may regard historically as an *s*-stem based derivative (i.e., **uraHdʰ-zʰ-man-* < **uraHdʰ-s-man-*), the *-z* would have been induced by the *-s-* of the *s*-stem. As discussed above, in Avestan, dentals were lost in any sequence in which they were followed by a sibilant. With the dental no longer visible synchronically, the root in such a form would be easily reanalyzed as *"ruuāz-*. Therefore, the root final consonant variation in *"ruuād-* and *"ruuāz-* may have had its origin in nominal forms and need not be due to the present stem *sk̥-*suffix.

3.2.2. *vrādh-* in Vedic

To complete our discussion of Av. *"ruuād-* and *"ruuāz-*, let us look briefly now at the forms, distribution, and semantics of the equivalent Vedic root *vrādh-*. This root is limited to the RV, where it appears nine times as an active participle *vrādhant-*, once as a suspicious middle injunctive *vrādhanta*,⁹⁷ and once as a participle-based superlative *vrādhantama*-.⁹⁸

⁹⁷ See Hoffmann (1967:122 n. 32) on this highly suspicious form.

⁹⁸ These are rare forms; a similar participle-based superlative is *sāhan(t)-tama-* ‘siegreichst’ (RV); cf. AiG II.2:597.

Commonly assumed meanings for *vrādh-* are ‘provoke/incite (to anger); excite (of soma)’ (*PW* 1503),⁹⁹ ‘be large/strong/powerful’ (*Grassmann* 1364), ‘taking on importance (of enemies)’ (*EVP* 13:109). Many recent Vedicists—presumably following Hoffmann—assume a meaning ‘be proud/boastful’ (*Hoffmann* 1967:122 with n. 32, *EWAia* II:597, *Gotō* 1987:302, *Werba* 1997:400f.). It is clear from the wide range of translations that the root *vrādh-* involves significant difficulties of interpretation.¹⁰⁰ The meaning ‘be proud/boastful’ is explicitly assumed by *Werba* (1997:400f.) as one of the original meanings of the PIIr. root **uraHdʰ-*. As we saw above with the Avestan roots *uruuād-* and *uruuāz-*, a meaning ‘be joyful/pleased’ is undeniable in many cases—note, for example, the adjectival participle *uruuāzəmna-* in the following passage:

- (7) (Yt. 10.34)
yaθa *vaēm* *humanan̥hō* *framanan̥has-ca* *uruuāzəmna*
 so.that we-NOM.PL in.good.spirit-NOM.PL cheerful-NOM.PL-and joyful-NOM.PL
haomanan̥himna *vanāma* *vīspā* *+hamər²θā*
 optimistic-NOM.PL overcome-SUBJ.1PL all-ACC.PL opponents-ACC.PL
 ‘[Give us the following boon(s)] so that we, being in good spirit, cheerful, joyful, and optimistic, may overcome all opponents’ (trsl. Gershevitch 1959:89ff.)

If we assume with *Werba* that PIIr. **uraHdʰ-* meant ‘be proud/boastful’, we must assume that this meaning changed to ‘be joyful’ in Avestan but was inherited unchanged by Vedic—if Hoffmann’s ‘be proud/boastful’ for Ved. *vrādh-* is in fact correct. Alternatively, we could assume that ‘be joyful’ was the original meaning of the root in Proto-Indo-Iranian. Avestan would then preserve this meaning while Ved. *vrādh-*—if it means ‘be proud/boastful’—would represent a semantic innovation. I will argue below that *Grassmann*’s ‘be large/strong/powerful’ for Ved. *vrādh-* most accurately captures the meaning of this root as it is used in the RV and that this meaning is in fact secondary, arising through association with an etymologically unrelated root. I also argue that the original meaning of PIIr. **uraHdʰ-* was ‘be joyful’ and that this sense was inherited by Avestan.

A brief synopsis of the contexts in which *vrādh-* appears in the RV is given below. A nearly identical phrase *māhi vrādhanta* ‘they *vrādhanta* mightily/powerfully’ appears three times in line-

⁹⁹ Supported by Geldner (1885:586): “[*vrādh-*, *uruuāz-*] bedeutet ‘reizen’ in allen schattirungen des deutschen wortes”; however, Geldner does not follow this meaning in his translation of the RV.

¹⁰⁰ Geldner is quite inconsistent in his translation of these forms, rendering them as ‘be proud, feel strong, be powerful, extend oneself, etc.’; see the Appendix at the end of this chapter.

initial position (RV 1.135.9c, 5.6.7b, 10.89.15b). Besides these three collocations with the adverbial *máhi* ‘powerfully’, an adjective *mahá-* ‘great, powerful’ appears once with the superlative *vrādhantama-* (RV 1.150.3b). At RV 10.69.11, which I have given below with Geldner’s translation, we find *vrādhant-* in the quasi-comparative construction *vrādhantam ... vṛdhás cit* ‘more *vrādhant-* than even *vṛdh-*’. Renou (EVP 14:83) remarks that this phrase is an extension of the phrase *sáhasaś cit sáhīyān* ‘even mightier than the mighty’ (RV 10.176.4c):

(8) (RV 10.69.11)

<i>śásvad</i>	<i>agnír</i>	<i>vadhryaśvásyā</i>	<i>śátrūn</i>
incessantly	Agni-NOM	Vadhryaśva-GEN	rivals-ACC.PL
<i>nṛbhir</i>	<i>jigāya</i>	<i>sutásomavadbhiḥ</i>	
men-INS.PL	defeat-PF.3SG	soma-pressing-INS.PL	
<i>sámanam</i>	<i>cid</i>	<i>adahaś</i>	<i>citrabhāno</i>
assembly-ACC	even	burn-IMPF.2SG	of.brilliant.light-VOC
<i>ava</i>	<i>vrādhantam</i>	<i>abhinad</i>	<i>vṛdhás</i> <i>cit</i>
PVB	powerful-ACC	split-IMPF.3SG	powerful-ABL even

• ‘Immer wieder hat des Vadhryaśva Agni die Feinde besiegt (im Bunde) mit den somapressenden Herren. Du branntest die Schlacht(reihe) nieder, du Prachtglanz; du hast den, der sich stärker fühlte als selbst der Starke, herabgehauen.’ (trsl. Geldner 1951c:247)

The racing horses (*vājīnaḥ*) of Agni—a metaphor for his flames (*arcáyah*)—are said to *vrādhanta* (RV 5.6.7ab). The bulls of Vāyu—a metaphor for his powerful winds—likewise are *vrādhantaḥ* (RV 1.135.9abc). At RV 10.49.8d, Indra brags: “I made 99 *vrādhataḥ* strong”, in other words, “I strengthened 99 until they reached the state of being *vrādhataḥ*”. The triumphant donor is said to be mightier (*śárdhastaraḥ*) than the *vrādhataḥ* Nahuṣ, the name of a powerful rival clan¹⁰¹ (RV 1.122.10ab).

In the majority of passages—seven out of eleven in total—*vrādhant-* clearly refers to powerful enemies: Indra slays the more numerous *vrādhant-* even with fewer companions (RV 4.32.3), Agni overpowered the former ones, even the *vrādhant-* (RV 10.69.10cd), Agni split the one who is more *vrādhant-* than even the powerful (RV 10.69.11d), malevolent rivals who are *vrādhant-* and powerful assail us (RV 10.89.15ab), with his left hand, Indra will subdue even the *vrādhant-* (RV 1.100.9a), the triumphant donor(?) is mightier than the Nahuṣ, who are *vrādhant-* (RV 1.122.10ab), with his forces, Indra [conquered] the *vrādhant-* (RV 10.99.9a).

¹⁰¹ Cf. EWAia II:32. Note also RV 10.49.8a, where the heroic Indra brags: “I am more Nahuṣ than the Nahuṣ (*ahám ... náhuṣo náhuṣtaraḥ*).”

Reviewing the passages, I do not see any compelling reason to assume the meaning ‘be proud/boastful’ for *vrādh-*. Considering the analogous phrase *sáhasaś cit sáhīyān* ‘even mightier than the mighty’, *vrādhantam ... vṛdhás cit* in (8) above most likely means ‘more powerful than even the powerful’. That the phrase *vrādhantam ... vṛdhás cit* could be associated with *sáhasaś cit sáhīyān* in the first place shows that the meaning of *vrādhant-* was somewhere in the neighborhood of *sáhas-* ‘mighty, powerful’. The clear association with *vṛdh-* ‘powerful’¹⁰² here also shows that there was a strong synchronic link between *vrādh-* and *vardh-* ‘grow/become strong’.¹⁰³ As noted by Renou (*EVP* 13:109, 1939:169), *vrādhant-* is semantically similar to *śárdhant-* ‘defiant’, *śūśuvāms-* ‘swollen, powerful’, and *vāvṛdhāná-/vṛdhāná-* ‘grown, powerful’—all of these participle-based adjectives used to refer to formidable rivals.¹⁰⁴ The rather frequent appearance of *vrādh-* with the adverb *máhi* ‘mightily/powerfully’ and the adjective *mahá-* ‘great, powerful’ also likely point to a connection with the root *vardh-*, which appears in similar collocations:

(9) (RV 4.3.14d)

jahí rákṣo, máhi cid vāvṛdhānám
 slay-IMPV.2SG evil.spirit-ACC powerful-NOM even strengthened-NOM
 ‘... erschlag den bösen Geist, auch wenn er mächtig erstarkt ist!’ (trsl. Geldner 1951a:421)

(10) (RV 3.36.5a)

mahám ugró vāvṛdhe vīryāya
 great-NOM powerful-NOM grow-PF.3SG manly.power-DAT
 ‘Groß, gewaltig ist er zu (voller) Manneskraft erwachsen ...’ (trsl. Geldner 1951a:377)

3.2.3. **uraHd^h*- in Proto-Indo-Iranian

For Av. *uruuād-* and *uruuāz-*, a meaning ‘be joyful’ (*AiW* 1543f.) appears to be fairly clear, but this meaning is not apparent for Ved. *vrādh-*, for which ‘be powerful’ is most appropriate. The Avestan evidence, with its richer display of forms built to *uruuād-/uruuāz-*, in particular the Caland system forms, may be more reliable for determining the semantics of the Proto-Indo-Iranian root than Ved.

¹⁰² *vṛdh-* is the root noun of *vardh-* ‘grow/become strong’.

¹⁰³ A semantic affinity with *vardh-* may also have helped to motivate the creation of the sole finite form *vrādhanta* (RV 5.6.7b), with its middle voice in contrast to the exclusively active voice of the participle—an original participle *vrādhanta(h)* may have become associated with an injunctive like *vardhanta*, which appears at RV 5.19.3b.

¹⁰⁴ On *vrādhant-* : *vāvṛdhāná-/vṛdhāná-*, note also the synchronic association between middle participles in *-āna* and verbal adjectives in *-nt*, e.g., *dhṛṣánt-* : *dhṛṣāná-* (AV) < *dhṛṣ-* ‘dare’, *vṛdhánt-* : *vṛdhāná-* (*vāvṛdhāná-*) < *vṛdh-* ‘increase’; Jasanoff (1978:88); cf. also *vāvṛdhánt-* pr-pt. to pf. stem (1x).

vrādh-, as it is likely that the semantics of *vrādh-* in Vedic have been substantially distorted by association with nearly homophonous root *vardh-* ‘grow, become strong’. Note also that in contrast to Avestan, where a wide array of formations are built to this root, *vrādh-* was a marginal root in the RV. As a result of the above linguistic and philological analyses, we are justified in setting up a meaning ‘be/become joyful’ for PIIr. **uraHdʰ-*,¹⁰⁵ with preservation of this meaning in Avestan and innovation in Vedic.¹⁰⁶

¹⁰⁵ Cf. Kümmel (2000:623), who sets up the meaning ± ‘zufrieden sein’ for PIIr. **uraHdʰ-*, giving ‘sich freuen’ for Av. *ruuādh-*. Note, however, that he assumes the meaning ‘stolz sein’ for Ved. *vrādh-*.

¹⁰⁶ One final issue is worth mentioning here. Ved. *vrādhant-* is usually interpreted as an active present participle (solely functioning as an adjective in the RV). If so, how is the active voice of this participle to be reconciled with the relatively well-attested middle voice of YAv. *ruuāzənte* and *ruuāzəmna-*? Considering the Caland system behavior shown by OAv. *ruuādah-* and *ruuādiiah-*, could *vrādhant-* rather represent an amphikinetic adjective in **-ont* (the *jārant-*, *bṛhánt-* type) than a present participle?

APPENDIX TO CHAPTER THREE: AVESTAN AND VEDIC PASSAGES

Below are given all of the passages involving the roots Av. *uruuād-/uruuāz-* and Ved. *vrādh-*. To show how these roots have been interpreted, I have included a sampling of various translations. Translations with no following references are by the author.

• Avestan passages:

• OAv. *uruuādah-*

(Y. 43.2)

vispā aiiār³ dar³gō.jiiātōiš uruuādanhā
all-ACC.PL days-ACC.PL long.life-GEN joy-INS

- ‘(Moreover, [I wish] for this person the best of all things, that by which a man might place a person of good purpose in happiness: to be understanding) all his days, with the joy of long life’ (trsl. Insler 1975:61)
- ‘(And may the man in [the domain of] comfort obtain for himself the best of all [things], [namely] comfort ... [as well as] the blessings of good thought which Thou grantest through truth), on all days, along with the joy of a long life’ (trsl. Humbach 1991:151)

• OAv. *uruuā’diiāh-*

(Y. 34.6)

yaθā vā yazəmnascā uruuā’diiā stauuas
so.that you-ACC.PL worshipping-NOM more-joyfully-NOM praising-NOM
aiienī pa’tī
approach-PR.SUBJ.1SG PVB

- ‘(give ye that sign to me through every change of this world), so that I shall very happily approach all of you, as I worship and praise’ (trsl. Insler 1975:55)
- ‘(make that clear to me on all days of this existence), so that I may come to meet You again, worshipping and praising [You even] more joyfully’ (trsl. Humbach 1991:141)

• OYAv. *uruuāzišta-*

(Y. 17.11 = Y. 59.11)

θβqam ātrəm ahurahe mazdā puθrəm yazama’de
you-ACC fire-ACC Ahura-GEN Mazdā-GEN son-ACC worship-PR.1PL
ātrəm bə³zisauuanhəm yazama’de
fire-ACC bə³zi-sauuah-ACC worship-PR.1PL
ātrəm vohu.friiānəm yazama’de
fire-ACC vohu.friiāna-ACC worship-PR.1PL
ātrəm uruuāzištəm yazama’de
fire-ACC uruuāzišta-ACC worship-PR.1PL
ātrəm vāzištəm yazama’de
fire-ACC vāzišta-ACC worship-PR.1PL
ātrəm spəništəm yazama’de
fire-ACC spəništa-ACC worship-PR.1PL

‘We worship you, fire, the son of Ahura Mazdā: We worship the *bərzi-sauuah*-fire, ... the *vohu.friiāna*-fire, ... the *ruuāzišta*-(most delightful?) fire, ... the *vāzišta*-(most invigorating) fire, ... the *spāništa*-(most life-giving) fire (i.e., the five types of fire)’

(Y. 36.2)

ruuāzištō *hūuō* *nā* *yātāiiā* *pa'ti.jamiiā*
 most.joyful-NOM that-NOM us-ACC.PL requested-dat come.hither-OPT.2SG
ātarō *mazdā* *ahurahiiā*, *ruuāzištahiiā* *ruuāziiā* *nqmištahiiā*
 fire-VOC wise-GEN lord-GEN most.joyful-GEN joy-INS best.giving.homage-GEN
nəmanhā *nā* *mazištāi* *yānhqam* *pa'ti.jamiiā*
 homage-INS us-ACC.PL greatest-DAT requests-GEN.PL come.hither-OPT.2SG

‘Mögest du dort, der Freudvollste, zu uns herbeikommen um der Bitte willen, o Feuer des Weisen Herrn. Mögest du mit der Freudigkeit des höchst Freudvollen, mit der Verehrung des am besten Verehrenden zu uns herbeikommen um der größten der Bitten willen.’ (trsl. Narten 1986:41)

(Y. 49.8)

frašaoštrāi *ruuāzištqm* *ašahiiā* *dā* *sarām*
 Frašaoštra-DAT most.happy-ACC truth-GEN grant-INJ.2SG alliance-ACC

- ‘Do Thou grant the most happy alliance of truth to Frašaoštra’ (trsl. Insler 1975:97)
- ‘To Frašaoštra grant the most delightful shelter of truth’ (trsl. Humbach 1991:181)
- ‘You made for Frasha-ushtra the most blissful union with Order’ (trsl. Skjærvø 2011:129)

(Yt. 13.85)

ašāunqm *vanuhiš* *sūrā* *spəntā* *frauuašaiiō*
 righteous-GEN.PL good-ACC.PL life-giving-ACC.PL revitalizing-ACC.PL *frauuaši*-NOM.PL¹⁰⁷
yazamaide *yqm-ca* *āθrō* *ruuāzištahe*
 worship-PR.1PL that-ACC-and fire-GEN *ruuāzišta*-GEN

- ‘We worship the good, life-giving, revitalizing *frauuaši*’s of the righteous, and that [*frauuaši*] of the *ruuāzišta*-(most delightful?) fire’
- ‘We sacrifice to the pre-soul of the most invigorating fire’ (trsl. Skjærvø 2011:69)

- OAv. *ruuāz³man-*, YAv. *ruuāsman-*

(Y. 10.8; cf. Yt. 17.5)

āaṭ *hō yō* *haomahe* *maδō* *aša* *haca'te*
 then that-NOM Haoma-GEN intoxication-NOM Order-INS be.accompanied.by-PR.3SG
ruuāsmana
 delightful-INS

‘the intoxication of Haoma is accompanied by delightful Order’

(Y. 32.1)

axiiācā *xvaētus* *yāsaṭ* *ahurahiiā* *ruuāz³mā* *mazdā*
 His-GEN family-NOM entreat.for-INJ.3SG lord-GEN grace-ACC wise-GEN

- ‘the family ... entreated for the grace of Him, the Wise Lord’ (trsl. Insler 1975:45)
- ‘The family entreats ... for His, the Wise Ahura’s favour (things which afford delight)’ (trsl. Humbach 1991:132)

¹⁰⁷ The nominative here does not fit the passage and should be interpreted as an accusative.

(P. 37 [38])

pascaēta azəm yō ahurō mazdā [h]a[uuā]i urune
then I-NOM who-NOM Ahura-NOM Mazdā-NOM his.own-DAT soul-DAT
“ruuāsma daēsaiieni
bliss-ACC show-SUBJ.1SG

‘Then I who am Ahura Mazdā will show bliss to his soul’ (trsl. Jamaspasa & Humbach 1971:59)

(Vyt. 50)

mā məm druuo pa’ti daḍaoiš, yezi məm druuo tafnuš
do.not me-ACC lieful-VOC PVB give.over-OPT.2SG if me-ACC lieful-VOC fever-NOM
para “ruuāsmana barahe
PVB joy-INS take.away-PR.2SG
‘Do not give me over ... if you, the fever, take me away along with joy ...’

- OAv. *“ruuāzi-*, *“ruuāzī-* f., *“ruuāzā-*

(Y. 30.1)

yā raocābīš dar’satā “ruuāzā
which-NOM day-after-day-INS.PL visible-NOM ?joy-NOM/?LOC

- ‘(I shall proclaim) what delight (is) to be seen through the lights’ (trsl. Humbach 1991:123)
- ‘(I shall speak of those things which are to be borne in mind) ... which things are to be looked upon in joy throughout your days’ (trsl. Insler 1975:33)
- ‘(Nun werde ich diese (Dinge) nennen) ... die Tag für Tag in der Frohgemutheit sichtbar sind’ (trsl. Hoffmann 1975:392)
- ‘(Now, I shall speak ... those words to which even a knowing man should pay attention: the praises and ritual performances of my good thought performed for the Lord, O well-attentive ones, and for Order), on account of which, through the lights, gladdening things (the sun, rewards) are being seen’ (trsl. Skjærvø 2011:45)
- Kellens & Pirart (1990:313): *“ruuāzā* = present indicative 1sg.

(Y. 36.2: see above)

- perfect OYAv. *vaorāz-*

(Y. 50.5)

hiiat yūšmākāi mąṛrānē vaorāzaḍā a’bi.dar’stā āuuīšiiā auuanhā
because your-DAT poet-DAT be.pleased-PF.SUBJ.2PL visible-INS manifest-INS help-INS

- ‘Yes, if ye shall be pleased with your prophet, reveal Thyself with visible help’ (trsl. Insler 1975:99)
- ‘since You take delight [in helping] Your disciple with visible, manifest help’ (trsl. Humbach 1991:184)
- ‘da ihr euch freuen werdet an sichtbarer, offener Hilfeleistung für euren Dichter’ (trsl. Kümmel 2000:623)

(N. 84)

āuuōiia +dāṛrəm daḍā’ti spitama zaraḍuštra yējhe dāḍrahe
woe gift-ACC give-PR.3SG Spitama-VOC Zarathuštra-VOC whose-GEN gift-GEN
dā’ti +nōiṭ +hauuō “ruua +vaorāza
giving-INS not own-NOM soul-NOM be.pleased-PF.3SG

- ‘Wehe [dem, der] eine Gabe gibt, ..., dessen eigene Seele sich am Geben der Gabe nicht freut’ (trsl. Kümmel 2000:623)

- ‘Woe to [him who] gives a [pious] gift, Spitama Zarathustra, whose own soul is not delighted by the giving of the [pious] gift’ (trsl. Kotwal & Kreyenbroek 2003:281)

- simple thematic present (middle) YAv. *“ruuāz-a-*

(Yt. 10.34)

yaθa vaēm humanəhō framanəhas-ca “ruuāzəmna
 so.that we-NOM.PL in.good.spirit-NOM.PL cheerful-NOM.PL-and joyful-NOM.PL
haomanəhīmna vanāma vīspā +hamər²θā
 optimistic-NOM.PL overcome-SUBJ.1PL all-ACC.PL opponents-ACC.PL
 ‘[Give us the following boon(s)] so that we, being in good spirit, cheerful, joyful, and optimistic, may overcome all opponents’ (trsl. Gershevitch 1959:89ff.)

(Yt. 10.73)

yō bāda ustānazastō “ruuāzəmnō auuarōiṭ vācim
 who-NOM at.times with.outstretched.hands-NOM joyful-NOM raise-OPT.3SG voice-ACC
 ‘(Grass-land magnate Mithra we worship) ... who at [other] times joyfully raises his voice (to Ahura Mazdāh), speaking with outstretched hands ...’ (trsl. Gershevitch 1959:109)

(FrD. 7)

vīspā āpō ... “ruuāzənte
 all-NOM.PL waters-NOM.PL prosper-PR.3PL
 ‘All the ... waters prosper’

- simple thematic present (active) YAv. *“ruuāθən ~ “ruuāsən*

(Yt. 13.93 = Yt. 17.18)

yeṛhe (Geld.: yehe) zqθaē-ca vaxšaē-ca “ruuāsən/“ruuāθən āpō
 whose-GEN birth-LOC-and growth-LOC-and prosper-INJ.3PL waters-NOM.PL
“ruuarās-ca yeṛhe (Geld.: yehe) zqθaē-ca vaxšaē-ca
 plants-NOM.PL-and whose-GEN birth-LOC-and growth-LOC-and
uxšiian (J10; Geld.: uxšin) āpō “ruuarās-ca
 grow-INJ.3PL waters-NOM.PL plants-NOM.PL-and
 ‘When he (Zarathustra) was born and grew up, waters and plants prospered, waters and plants grew’ (trsl. Skjærvø 2011:132)

- **Vedic passages:**

(RV 5.6.7ab)

tāva tyé agne arcāyo |
 your-GEN these-NOM.PL Agni-VOC flames-NOM.PL
māhi vrādhanta vājīnaḥ |
 mightily grow.powerful-INJ.3PL war.horses-NOM.PL

- ‘Diese deine Flammen, o Agni, die Streitmasse tuen sich mächtig groß’ (trsl. Geldner 1951b:9)
- ‘Those flames of thine, O Agni, the racers, have boasted mightily’ (trsl. Oldenberg 1897:379f.)
- ‘Diese deine Strahlen, o Agni, sind gar stolz [wie] Streitmasse’ (trsl. Hoffmann 1967:122)
- ‘Les-fameuses flammes tiennes, ô Agni, grandissent puissamment, (tels des chevaux) porteurs-de-prix’ (trsl. Renou, EVP 13:22)
- Sāyaṇa: *vrādhanta vardhante* ‘*vrādhanta* [means] growing’

(RV 4.32.3)

dabhrébhiś *cic* *chásiyāmsam* |
fewer-INS.PL even more.numerous-ACC
hāmsi *vrādhantam* *ójasā* |
slay-PR.2SG powerful-ACC strength-INS
sákhibhir *yé* *tuvé* *sácā* ||

companions-INS.PL who-NOM.PL you-LOC together

• ‘Mit nur wenigen Gefährten, die zu dir (Indra) halten, schlägst du den zahlreichen (Feind), der sich mit seiner Stärke großtut’ (trsl. Geldner 1951a:460)

• cf. *dabhrébhiś cit sámṛtā hāmsi bhūyasaḥ* (RV 1.31.6d), *dabhrébhir anyāḥ prá vṛṇoti bhūyasaḥ* (RV 7.82.6d)

• *vrādhantam ójasā* : cf. *asyá tritó n_{iv} ójasā vṛdhānó* (RV 10.99.6c)

• Sāyaṇa: *vrādhantam mahāntam api śatrum* ‘the *vrādhantam* [means] even the powerful rival’

(RV 10.69.10cd)

juṣānó *asya* *samídham* *yaviṣṭha* |
enjoying-NOM his-GEN firewood-ACC youngest-VOC
utá *pūrvān* *avanor* *vrādhataś* *cit* ||
also former-ACC overpower-IMPF.2SG powerful-ACC.PL even

• ‘An dessen (des Vadhryaśva) Brennhölzern Gefallen findend, o Jüngster, hast du (Agni) auch die früheren (Feinde) überwunden, wenn sie noch so stark sich fühlten’ (trsl. Geldner 1951c:247)

• ‘Comme tu appréciais sa bûche-flambante, ô (dieu) très jeune, tu as gagné à toi (les Agni) antérieurs, si gonflés-de-force fussent-ils’ (trsl. Renou, *EVP* 14:18)

• cf. Renou (*EVP* 14:83): “les *pūrvān* ... *vrādhataḥ* doivent être les mêmes que les *śātrūn* [in the following stanza] 11”

• Sāyaṇa: *vrādhataś cid bādhakān api śātrūn* ‘even the *vrādhataḥ* [means] even the oppressive rivals’

(RV 10.69.11)

śáśvad *agnír* *vadhryaśváśya* *śātrūn* |
incessantly Agni-NOM Vadhryaśva-GEN rivals-ACC.PL
nṛbhir *jigāya* *sutásomavadbhiḥ* |
men-INS.PL defeat-PF.3SG soma-pressing-INS.PL
sámanam *cid* *adahaś* *citrabhāno* |
assembly-ACC even burn-IMPF.2SG of.brilliant.light-VOC
ava *vrādhantam* *abhinad* *vṛdhás* *cit* ||
PVB powerful-ACC split-IMPF.3SG powerful-ABL even

• ‘Immer wieder hat des Vadhryaśva Agni die Feinde besiegt (im Bunde) mit den somapressenden Herren. Du branntest die Schlacht (reihe) nieder, du Prachtglanz; du hast den, der sich stärker fühlte als selbst der Starke, herabgehauen.’ (trsl. Geldner 1951c:247)

• ‘Sans cesse l’Agni de Vadhryaśva a vaincu les ennemis à l’aide des seigneurs accompagnés des presseurs de *soma*. Tu as brûlé l’ensemble (des ennemis, si grand) fût-il, ô (dieu) aux rayons éclatants; tu as abattu-en-le-brisant (le démon) gonflé-de-sa-force par rapport même à un fort’ (trsl. Renou, *EVP* 14:18)

• cf. Renou (*EVP* 14:83): “*vrādh-* : *vṛdh-*. Le rapprochement des deux formes est-il un souvenir de la parenté originelle (ci-dessus 5,6,7)? La formule ici est une extension du type *sáhasaś cit sáhiyān* [10.]176,4”

• Sāyaṇa: *vrādhantam vardhamānam himsakam vā* ‘*vrādhantam* [means] growing or hostile’

(RV 1.135.9abc)

imé yé te sú vāyo bāhāvōjaso |
 these-NOM.PL which-NOM.PL your-GEN PCLE Vāyu-VOC with.strength.in.the.arms-NOM
antár nadī te patáyantīy ukṣāṇo |
 inside river-LOC your-GEN fly-PR.3PL bulls-NOM.PL
māhi vrādhanta ukṣāṇaḥ |
 mightily powerful-NOM.PL bulls-NOM.PL

- ‘Diese sind fein deine beinstarken (oder: des armstarken) Stiere, o Vāyu, die im Flusse fliegen, die mächtig sich reckenden Stiere’ (trsl. Geldner 1951a:190)
- ‘Voici donc, ô Vāyu, tes taureaux de qui la force (réside en leurs) jambes-avant: ils volent dans la rivière, (ces) taureaux croissant vigoureusement’ (trsl. Renou, *EVP* 15:103)
- ‘Hier sind die, die gewiß als deine Armstarken, o Vāyu, als deine Jungstiere (der Windstrom als wunderbare Jungstiere) innen im Flusse fliegen, die mächtig stolzen Jungstiere’ (trsl. Witzel & Gotō 2007:253)
- Sāyaṇa: *vrādhato vardhamānāḥ* ‘*vrādhataḥ* [means] growing’

(RV 10.89.15ab)

śatrūyānto abhī yé nas tatasré |
 malevolent.rivals-NOM.PL PVB who-NOM.PL us-ACC.PL assail-PF.3PL
māhi vrādhanta ogaṇāsa indra |
 mightily powerful-NOM.PL fierce-NOM.PL Indra-VOC

- ‘Die feindlich gesinnt wider uns ausgezogen sind, sich gar stark fühlend, die Gewalttätigen, o Indra’ (trsl. Geldner 1951c:286)
- ‘Die feindlich gesinnt uns feindlich bestürm(t hab)en, sich groß und stark, Indra’ (trsl. Kümmel 2000:204f.)
- for the sense of the passage, cf. SV I 4.1.5.5 *úgaṇā vā manyamānas turó vā*
- Sāy. *vrādhanto* ‘*smān bādhamānā*’ ‘*vrādhantaḥ* [means] oppressing us’

(RV 1.100.9ab)

sá savyéna yamati vrādhataś cit |
 he-NOM left-INS tame-SUBJ.3SG powerful-ACC.PL even
sá dakṣiṇé sámgrbhītā kṛtāni |
 he-NOM right-LOC gripped.fast-ACC.PL winning.throw-ACC.PL

- ‘Mit der Linken bändigt er (Indra) selbst die Großen, in der Rechten hält er die Siegestrumpfe fest.’ (trsl. Geldner 1951a:128)
- ‘Der wird mit der Linken selbst die Großspurigen bändigen. Der ist in der Rechten die Siegestrumpfe Zusammenraffender.’ (trsl. Witzel & Gotō 2007:176)
- Sāyaṇa: *vrādhataś cit himsato mahataḥ śatrūn api* ‘even the *vrādhataḥ* [means] even the hostile, powerful rivals’

(RV 1.122.10ab)

sá vrādhato náhuṣo dámsujūtaḥ |
 he-NOM powerful-ABL Nahus-ABL ?-NOM
śārdhastaro narāṁ gūrtáśravāḥ |
 mightier-NOM men-GEN.PL of.welcome.fame-NOM

- ‘Dieser (der in 9d charakterisierte Verehrer [Sāy.] oder der Hauptdonator [Geldner])... ist stärker noch als der mächtige Nahus; sein Ruhm wird von den Männern gepriesen’ (trsl. Geldner 1951a:169)
- ‘Celui-là est plus valeureux que le violent Nahuṣ, ayant été mû (comme) par miracle; sa gloire est chantée par les seigneurs’ (trsl. Renou, *EVP* 5:7)
- ‘So ist er als Heimkehrer (Triumphator) mächtiger als der stolze Nahuṣ, dessen Ruhm unter den Männern willkommen geheißen wird’ (trsl. Witzel & Gotō 2007:225)

- Sāyaṇa: no comment on *vrādhataḥ*

(RV 10.49.8)

ahám saptahā náhuṣo náhuṣṭarah |
 I-NOM slayer.of.seven-NOM Nahus-ABL more.Nahus-like-NOM
prāśrāvayaṁ śávasā turváśaṁ yádum |
 make.famous-IMPF.1SG might-INS Turvaśa-ACC Yadu-ACC
ahám nīy anyám sáhasā sáhas karam |
 I-NOM PVB the.other-ACC power-INS power-ACC take.down-INJ.1SG
náva vrādhato navatīm ca vakṣayam ||
 nine powerful-ACC.PL ninety-ACC and make.grow-INJ.1SG

- (Indra:) “Ich bin der Siebentöter, ein größerer Nahus als Nahus selbst. Ich machte durch meine Überlegenheit den Turvaśa und Yadu berühmt. Ich brachte durch meine Macht den einen um seine Macht und neunundneunzig (andere) hob ich zu Großen empor.”
 (trsl. Geldner 1951c:209f.)
- Sāyaṇa: *vrādhato vardhamānāḥ* ‘*vrādhataḥ* [means] growing’

(RV 10.99.9a)

sá vrādhataḥ śavasānébhir asya |
 he-NOM powerful-ACC.PL violent.ones-INS.PL his-GEN

- ‘Er (Indra) (bezwang) mit seinen Gewaltigen (wohl die Marut; Sāy. ergänzt ‘Waffen’) die Übermächtigen’ (trsl. Geldner 1951c:312)
- Sāyaṇa: *vrādhataḥ mahan nāmaitat, mahato ‘pi śatrūn* ‘*vrādhataḥ* [is equivalent to] the word *mahant-* ‘great/powerful’; [he overcomes] even powerful rivals [is the meaning]’

(RV 1.150.3ab)

sá candró vipra mártiyo |
 he-NOM brilliant-NOM priest-VOC mortal-NOM
mahó vrādhantamo diví |
 great-NOM most.powerful-NOM heaven-LOC

- ‘Der Sterbliche (der Sprecher selbst gemeint) ist glänzend, o Redegewaltiger, groß, der Höchste im Himmel’ (trsl. Geldner 1951a:208)
- ‘The mortal (who worships thee?), O priest, is brilliant, great, most powerful in heaven’
 (trsl. Oldenberg 1897:178)
- ‘Ce mortel-là (, non celui-ci, est) brillant, ô (Agni,) orateur-inspiré; il est grand, très puissant au ciel’ (trsl. Renou, *EVP* 12:39)
- cf. Renou (*EVP* 12:109): “*vrādhantama*, formation analogue à *sāhantama*, de la base purement rgvéd. *vrādh-*, qui figure volontiers à côté de *mahá* ou *mahí*.”
- ‘So ist der Sterbliche glänzend, o Geisteserregter, groß, der Stolzeste im Himmel’
 (trsl. Witzel & Gotō 2007:276)
- Sāyaṇa: *vrādhantamaḥ pravṛddhatamaḥ, itaradevānām api śreṣṭha ity arthaḥ* ‘*vrādhantamaḥ* [means] most mighty—the most excellent of the other gods [is] the meaning’

CHAPTER FOUR

Pāli *avajja*- and *vajja*:- A Study in Semantic Reanalysis

4.1. Introduction

The words *avajja*- and *vajja*- are found throughout the Pāli canonical and commentarial literature. Although *vajja*- consistently means ‘sin, transgression’, *avajja*- can mean both ‘sin’ and ‘non-sin’ depending on the environment in which it occurs. In this chapter I will examine the historical background of these words and clarify how *avajja*- came to express both ‘sin’ and ‘non-sin’.

4.2. *vajja*- and *avajja*- in context

4.2.1. *vajja*- ‘sin’

The meaning of Pā. *vajja*- ‘sin, transgression’ is straightforward and unproblematic. See examples

(1) to (6) below:

(1) (Dighanikāya I 63)

evaṃ pabbajito samāno pātimokkha-saṃvara-saṃvuto viharati
thus set.forth-NOM being-NOM restrained.with.pātimokkha.restraint-NOM abide-PR.3SG
ācāra-gocara-sampanno aṇu-mattesu vajjesu bhaya-dassāvī samādāya
attained.sphere.of.good.conduct-NOM slightest-LOC.PL sins-LOC.PL fearful-NOM adopt-GRD
sikkhati sikkhā-padesu
train.oneself-PR.3SG precepts-LOC.PL
‘Thus having set forth [into the renunciant’s life, the monk] abides, having restrained himself with the *pātimokkha* restraint. As one who has attained to the sphere of good conduct, as one fearful of [committing even] the slightest sins, he adopts and trains himself in the precepts ...’

(2) (Jātaka I 129)

vajja-bhīruka-bhaya-dassāvī-lakkhaṇaṃ ottappaṃ
characterized.by.fearing.being.fearful.of.sin-NOM remorse-NOM
‘Remorse [is] characterized by fearing [or] being fearful of [having committed a] sin.’

(3) (Dhammapada stanzas 317–319)

abhaye bhaya-dassino | bhaye ca_ abhaya-dassino |
not.to.be.feared-LOC fearful-NOM.PL to.be.feared-LOC and not.fearful-NOM.PL
micchā-diṭṭhi-samādānā | sattā gacchanti duggatiṃ ||
embracing.wrong.views-NOM.PL beings-NOM.PL go-PR.3PL unfortunate.state-ACC
avajje vajja-matino | vajje ca_ avajja-dassino |
non-sin-LOC regarding.as.sin-NOM.PL sin-LOC and regarding.as.non-sin-NOM.PL
micchā-diṭṭhi-samādānā | sattā gacchanti duggatiṃ ||

embracing.wrong.views-NOM.PL beings-NOM.PL go-PR.3PL unfortunate.state-ACC
vajjañ ca vajjato ñatvā | avajjañ ca avajjato |
 sin-ACC and sin-ABL knowing-GRD non-sin-ACC and non-sin-ABL
sammā-ditṭhi-samādhānā | sattā gacchanti suggatim ||

embracing.right.views-NOM.PL beings-NOM.PL go-PR.3PL fortunate.state-ACC

‘Being fearful of that which is not to be feared, and not being fearful of that which is to be feared, beings who embrace wrong views go to an unfortunate state. Regarding as sin a non-sin, and viewing as non-sin a sin, beings who embrace wrong views go to an unfortunate state. Knowing sin as sin, and non-sin as non-sin, beings who embrace right views go to a fortunate state.’

(4) (Vinayapiṭaka II 87)

yadi saṃghassa patta-kallaṃ saṃgho imaṃ adhikaraṇaṃ tiṇavatthārakena
 if saṃgha-DAT proper-NOM saṃgha-NOM this-ACC dispute-ACC covering.with.grass-INS
vūpasameyya ṭhapetvā thūla-vajjam
 settle-OPT.3SG except-GRD grave.sin-ACC

‘If it is deemed proper for the saṃgha, the saṃgha may settle this dispute by “covering with grass” (a method of settling a dispute), except [when the dispute involves] a grave sin ...’

(5) (Milindapañha 266)

dasa akusala-kamma-pathā idaṃ vuccati loka-vajjam
 ten paths.of.unwholesome.action-NOM.PL this-NOM is.called-PR.3SG worldly.sin-NOM
 ‘The ten paths of unwholesome action—this is called worldly sin.’

(6) (Milindapañha 266)

vikāla-bhojanaṃ mahārāja lokassa an-avajjam
 eating.at.improper.time-NOM great.king-VOC secular.world-DAT non-sin-NOM
taṃ jina-sāsane vajjam
 that-NOM victor’s.teaching-LOC sin-NOM

‘Great king, for the [secular] world, eating at an improper time is not a sin; [but] that is a sin according to the Victor’s (the Buddha’s) teaching.’

As can be observed from the above passages, *vajja-* can occur in the simplex and as the first or second member in compounds (*vajja-bhīruka-* ‘fearing sin’, *thūla-vajja-* ‘grave sin’, *loka-vajja-* ‘worldly sin’). Regardless of the environment in which it appears, *vajja-* consistently means ‘sin’. Note also that *vajja-* does not appear in bahuvrīhi compounds.

4.2.2. *avajja-* ‘sin’

Pā. *avajja-* means ‘sin’ only when it appears in the following three bahuvrīhi compounds: *an-avajja-* ‘without sin/fault’, *nir-avajja-* ‘without sin/fault’, and *sa-avajja-* ‘with sin/fault’. Examples are:

- (7) (Dīghanikāya I 70)
so iminā ariyena sīla-kkhandhena samannāgato ajjhataṃ
 he-NOM this-INS noble-INS body.of.moral.practices-INS endowed-NOM inner-ACC
an-avajja-sukhaṃ paṭisaṃvedeti
 happiness.without.sin-ACC experience-PR.3SG
 ‘He (the monk), endowed with this noble body of moral practices, experiences an inner happiness [which is] without sin/fault.’
- (8) (Milindapañha 252)
tena tena sadisena kāraṇena nir-avajjam anupāpitaṃ
 that-INS that-INS such-INS analogy-INS faultless-NOM made.understood-NOM
jina-sāsaṇaṃ
 victor’s.teaching-NOM
 ‘by one such analogy after another, the faultless teaching of the Victor (the Buddha) has been made understood ...’
- (9) (Suttanipāta stanza 534b)
sa-avajja an-avajjam yad atthi kiñci
 with.sin.without.sin-NOM which-NOM be-PR.3SG whatever-NOM
 ‘Whatever is with sin [and] without sin.’

We see that the contexts in which *avajja-* means ‘sin’ are strictly limited to cases in which it occurs in the second member of a bahuvrihi compound. Surprisingly, *avajja-* is also not attested in Pāli as the first member of a compound. The reasons for this will be discussed below. Now let us turn to the contexts in which *avajja-* means ‘non-sin’.

4.2.3. *avajja-* ‘non-sin’

I conducted an exhaustive search of the Pāli corpus and found the significant result that *avajja-* in the sense of ‘non-sin’ only appears in contexts where it occurs in the simplex and is contrasted with *vajja-* ‘sin’. Due to this restriction, *avajja-* in the simplex is not frequently attested. I quote stanzas 318–319 from example (3) above to illustrate:

- (3') (Dhammapada stanzas 318–319)
avajje vajja-matino | vajje ca_ avajja-dassino |
 non-sin-LOC regarding.as.sin-NOM.PL sin-LOC and regarding.as.non-sin-NOM.PL
micchā-diṭṭhi-samādānā | sattā gacchanti duggatiṃ ||
 embracing.wrong.views-NOM.PL beings-NOM.PL go-PR.3PL unfortunate.state-ACC
vajjañ ca vajjato ñatvā | avajjañ ca_ avajjato |
 sin-ACC and sin-ABL knowing-GRD non-sin-ACC and non-sin-ABL
sammā-diṭṭhi-samādānā | sattā gacchanti sugatiṃ ||

‘Regarding as sin a non-sin, and viewing as non-sin a sin, beings who embrace wrong views go to an unfortunate state. Knowing sin as sin, and non-sin as non-sin, beings who embrace right views go to a fortunate state.’

4.3. The prehistory of Pāli *vajja*- and *avajja*-

4.3.1. Etymology of *vajja*- ‘sin’

Pā. *vajja*- is commonly thought to correspond to the Sanskrit gerundive *varjya*- ‘to be avoided’ built to the root *varj*- ‘twist, turn, avert, avoid’ (*PED* 593, *CDIAL* 661, *BHSD* 469).¹⁰⁸ I have found no examples in Pāli where *vajja*- clearly appears with its original gerundival function as an adjective, but the neuter gender of *vajja*- is easily explained by assuming that the original adjective has been substantivized:¹⁰⁹ *vajja*- adj. ‘to be avoided’ → n. ‘that which is to be avoided, a sin, transgression’. This etymology is unproblematic and is supported by the fact that *vajja*- consistently means ‘sin’. Let us turn now to the question of why, depending on context, *avajja*- can mean both ‘sin’ and ‘non-sin’.

4.3.2. Etymology of *avajja*- ‘sin’ ~ ‘non-sin’

Compared to the rather straightforward etymology for *vajja*-, accounting for *avajja*- poses more difficulties. As stated above, *avajja*- ‘non-sin’ is found only in the simplex in contexts where it is contrasted with *vajja*- ‘sin’, while *avajja*- ‘sin’ is only found in compounds. To my knowledge, these important facts about its distribution have not been noticed by previous scholars who have worked on this problem. To explain the meaning ‘non-sin’ of Pā. *avajja*-, an unattested negated gerundive **a-varjya*- adj. ‘not to be shunned/avoided’, n. ‘non-sin’ has been posited (*PED* s.v. *avajja*-, *CPD* s.v. *a-vajja*-), while a form **an-ava-vadya*- ‘blameless’ with subsequent haplology has been proposed as underlying Pā. *an-avajja*- ‘without sin’ (*CPD* s.v. *an-avajja*-; followed by Oberlies 2001:114).

Pā. *avajja*- means ‘sin’ in the compounds *an-avajja*-, *nir-avajja*-, and *sa-avajja*-, and we see that compounds corresponding to these are also attested in Sanskrit: *an-avadyā*- (RV+), *nir-avadya*-

¹⁰⁸ An older cluster -*VrjyV*- regularly assimilates to -*VjjV*- in Pāli. On general assimilation rules for consonants in word-internal position, see Oberlies 2001:95ff.

¹⁰⁹ This is a common process in many of the older Indo-European languages; see Rau 2009:42.

(Up.+), *sa-avadya-* (Ep.+). It is therefore most reasonable to assume that at least in these compounds, Pā. *avajja-* corresponds to Ved. *avadyá-* adj. ‘blameworthy’, n. ‘sin’ (RV+).

The following is a complete inventory of simplex and compound forms with *avadyá-* in the RV (the forms are given in order of frequency):

- a. *an-avadyá-* ‘faultless’ (17x)
- b. *avadyá-* gerundival adj. ‘blameworthy’, n. ‘sin/fault/blemish’ (16x)
- c. *an-avadyá-rūpa-* ‘having a faultless form’ (1x)
- d. *avadya-gohana-* ‘concealing one’s faults’ (1x as a vocative applied to the Ásvins)
- e. *avadya-bhī-* ‘fearing [committing] a sin/transgression’ (1x)
- f. *guhád-avadya-* ‘concealing one’s faults’ (1x)

In the RV, *avadyá-* is used in contexts such as ‘fearing ...’, ‘concealing ...’, ‘protecting someone/oneself from ...’, ‘thinking of the newborn Indra as ...’, ‘giving gifts out of fear of ...’, ‘attaching ... to someone’, ‘intending ...’, ‘leaving behind ...’, ‘purifying ...’, etc. *an-avadyá-* ‘faultless’ is said of crowds (1.6.8), Agni (1.31.9), praises (3.31.13), Indra (10.147.2), the gods (7.91.1), aid (4.32.5), etc. Note also that *avadyá-* appears both in the simplex and as the first or second member of compounds. If Pā. *avajja-* corresponds to Ved. *avadyá-*, it is odd that *avajja-* is not attested as the first member of a compound. This will be discussed below.

The assumption that Pā. *an-avajja-* ‘without sin/fault’ derives from a haplogized **an-ava-vadya-* ‘blameless’ is problematic. The undeniable correspondence with Ved. *an-avadyá-* would force us to assume that haplology occurred also at a pre-Vedic stage; note that haplology presumably also occurred in the simplex *avadyá-* (<**ava-vadyá-*). A counterargument to the haplology account is offered by the accentuation of *avadyá-*. If it derives from a gerundive with a prefix *ava-* and not the privative *a-*, we would expect the accentuation to have been **ava-vádyā-*.

Debrunner (*AiG* II.2:724) comments that *avadyá-* originally meant ‘was nicht gesagt werden darf’, i.e. a gerundive derived from the root *vad-* ‘utter’ with the privative *a-*. Judging from the fact

that gerundives in *-ya-* with the privative *a(n)-* are typically oxytone,¹¹⁰ it is clear that *avadyá-* is best analyzed in this manner.¹¹¹

Accepting that *a-vadyá-* originally meant *‘not to be uttered’, it seems that by the time of the RV it had undergone some degree of lexicalization and came to have the sense ‘blameworthy’. The process of lexicalization which occurred in *avadyá-* essentially involved bleaching or reanalysis of the privative *a-*. We could speculate that speakers interpreted *avadyá-* as having some connection with the preposition *ava-* ‘down’, but this of course cannot be verified. Note that the rather frequent appearance of *an-avadyá-* ‘faultless’ in the RV also provides evidence for the lexicalization of *avadyá-*, as it is unlikely that *an-avadyá-* was analyzed as **an-a-vadyá-* ‘not not to be uttered’.

In the Aṣṭādhyāyī (3.1.101), Pāṇini has the following interesting statement about the semantics of certain gerundives that suggest that these had been lexicalized by his time: *avadya-panya-varyā garhya-panitavyānirodheṣu* ‘Unregelmässig gebildet sind *avadya-* in der Bedeutung ‘tadelnswerth’, *panya-* in der von ‘verkäuflich’ und *varya-* in einer anderen Bedeutung als ‘zurückzuhalten’ (trsl. Böhlingk 1887:87). We see that for Pāṇini, *avadya-* was not used in the sense of a negated form of *vadya-* ‘to be uttered’ but in the sense of *garhya-* ‘reprehensible’.

We can explain the developments within Pāli by starting with only two forms—*avadyá-* ‘sin’ and *varjya-* ‘sin’. After undergoing regular consonant cluster assimilation, these two forms would respectively become *avajja-* and *vajja-* in Pāli. Furthermore, at an early stage, both of these words would presumably have been synonymous. However, because *avajja-* synchronically looked like a negated form of *vajja-*, *avajja-* in its simplex forms was reanalyzed as an antonym of *vajja-*, and it was no longer possible in Pāli to use *avajja-* in its original sense of ‘sin’—only *vajja-* could be used in this meaning.¹¹² In the old compounds *an-avadyá-*, *nir-avadya-*, and *sa-avadya-*, however, the initial *a-* of *avadyá-* was not susceptible to semantic reanalysis as it was preceded by a semantically

¹¹⁰ Cf. *a-staryá-* ‘not capable of being struck down’ (ŚB), *a-jaryá-* ‘not capable of aging’ (ŚB), *a-kṣayyá-* ‘not subject to decay’ (ŚB), *an-āpyá-* ‘unreachable’ (RV+).

¹¹¹ Note also *vadya-* ‘to be uttered’.

¹¹² It is not possible to decide whether simplex *avajja-* ‘non-sin’, which only appears when contrasted with *vajja-* ‘sin’, directly reflects an older *avadya-* ‘sin’ that underwent semantic reanalysis or if it is simply a negated form of *vajja-* (< **varjya-*) created synchronically. If it is a negated form of *vajja-*, the PED and CPD’s underlying form **a-varjya-* is essentially correct. Nevertheless, what shows conclusively that my explanation of the semantic reanalysis of *avajja-* is correct are forms like Pā. *vajja-bhīruka-* ‘fearing sin’ vs. Ved. *avadya-bhī-* ‘id.’ in which it is obvious that an original **avajja-* (: *avadya-*) has been replaced by *vajja-*; see more below.

transparent morpheme. Thus *avajja-* in Pā. *anavajja-*, *niravajja-*, and *sāvajja-* corresponds in meaning to its Sanskrit counterpart *avadya-*. Interestingly, if we accept the analysis of Ved. *avadyá-* as stemming from *a-vadyá-* *‘what may not be uttered’, in which the privative *a-* subsequently became opaque, the semantic reanalysis which occurred in Pāli *avajja-* involved the reanalysis of the previously opaque privative *a-* as a transparent morpheme.

4.4. *avajja-* and *vajja-* in Ardha-Māgadhī

Ardha-Māgadhī, which, along with Pāli, is one of the oldest Middle Indo-Aryan languages, provides support for the solution proposed above. In this language we find the compounds *aṇ-avajja-*, *nir-avajja-*, and *sa-avajja-* and see that, like its Pāli counterpart, °*avajja-* has the meaning ‘sin’. Significantly, however, Ardha-Māgadhī also has *avajja-* in the simplex where it has retained its original meaning of ‘sin’.¹¹³ It thus appears that the semantic reanalysis of *avajja-* may be unique to Pāli.

vajja- in Ardha-Māgadhī and Pāli can be used as a neuter substantive meaning ‘sin’. However, whereas *vajja-* is used only as a neuter substantive in Pāli, Ardha-Māgadhī has preserved the original gerundival adjective usage: AMg. *vajja-* ‘to be avoided’, AMg. *vajja-vatthu-* ‘a thing to be avoided’. I have found no examples in Pāli where *vajja-* is used in this way.

4.5. Buddhist Hybrid Sanskrit

A phrase identical to the Pāli phrase *aṇu-mattesu vajjesu bhaya-dassāvi(n)-* ‘fearful of [committing even] the slightest sin’ appears in a Sanskritized version in Buddhist Hybrid Sanskrit as *aṇu-mātreṣu vadyeṣu bhaya-darśāvin-*. We see here that Pā. *vajja-* corresponds to BHS *vadya-*. The correct Sanskrit form here should have been *varjya-* (see BHS s.v. *vadya-*). In BHS we find a verb *vadya-te* which means ‘is rejected’: *sā me va santike api ca vadyase* (Mahāvastu 2.58.8) ‘You are in my presence, but are still rejected [by me]’. BHS *vadya-te* was Sanskritized from Middle Indic *vajja-ti* ‘be avoided, rejected’ and looks like a passive stem built to *vad-* ‘utter’, but the root *vad-* in Sanskrit does not form a passive stem with the meaning ‘is rejected’. Middle Indic *vajja-ti* ‘be avoided, rejected’

¹¹³ Cf. CCDPL 720.

actually corresponds not to a Skt. **vadya-te* but to Ved. *vr̥jyá-te* (root *varj-*). This situation reflects the same confusion between the roots *vad-* and *varj-* that we observed in Pāli *avajja-* (< *avadyá-*) and *vajja-* (< *varjya-*).

4.6. Old collocations

The collocation *avadyá- + bhī-* ‘fearing [committing] an offense/becoming blameworthy’ appears from the time of the RV to Middle Indic. I have collected the following forms:

- a. Ved. *avadya-bhī-*
- b. Pā. *aṇu-mattesu vajjesu bhaya-dassāvi(n)-*
- c. Pā. *vajja-bhīruka-*
- d. AMg. *avajja-bhīru-*
- e. BHS *avadya-bhīru-*
- f. BHS *aṇu-mātreṣu vadyeṣu bhaya-darśāvin-*

I cite below a passage from the RV:

(10) (RV 10.107.3)

<i>dāivī</i>	<i>pūrtīr</i>	<i>dākṣiṇā</i>	<i>deva-yajyā</i>
of.the.gods-NOM	gift-NOM	Dakṣiṇā-NOM	sacrifice.for.the.gods-NOM
<i>ná kavāribhyo,</i>	<i>na-hí</i>	<i>té</i>	<i>pṛṇānti</i>
not mean-DAT.PL	not-because	they-NOM.PL	give-PR.3PL
<i>áthā nárah</i>	<i>práyata-dakṣiṇāso</i>		
and men-NOM.PL	offering.a.Dakṣiṇā-NOM.PL		
<i>avadya-bhiyā</i>	<i>bahāvah</i>	<i>pṛṇanti</i>	
fear.of.blame-INS	many-NOM.PL	give-PR.3PL	

‘Die Dakṣiṇā ist eine für die Götter bestimmte Schenkung, ein Götteropfer; nicht ist (das Opfer) für die Geizigen, denn die schenken nicht. Und viele Herren, die eine Dakṣiṇā gewähren, schenken aus Furcht vor Tadel.’ (trsl. Geldner 1951c:327)

Note in the compounds above that although Vedic has *avadya-bhī-* ‘fearful of [committing a] sin’, and Ardha-Māgadhi has *avajja-bhīru-* ‘id.’, the corresponding Pāli compound is *vajja-bhīruka-* ‘one who is fearful of [committing a] sin’, in which we see that the initial *a-* is not present. Because all the forms of Pā. *avajja-* outside of the old bahuvrīhi compounds were reanalyzed as ‘non-sin’, the form

vajja- was the only form available to speakers if they intended the meaning ‘sin’. The fact that *avajja-* underwent semantic reanalysis in Pāli is clearly evident here.

4.7. On the interpretation of Theragāthā stanza 789

As I have repeatedly emphasized, Pā. *avajja-* in the meaning ‘non-sin’ appears only in contexts where it is contrasted with *vajja-* ‘sin’. However, in the Theragāthā we find the following passage:

(11) (Theragāthā stanza 789)

<i>saddhāya_ ahaṃ</i>	<i>pabbajito</i>		<i>upeto</i>		<i>jina-sāsane</i>	
faith-ABL I-NOM	set.forth-NOM		endowed.with-NOM		teaching.of.the.victor-LOC	
<i>avajjā mayhaṃ</i>	<i>pabbajjā</i>		<i>anaṇo</i>		<i>bhuñjāmi bhojanaṃ</i>	
? me-DAT	setting.forth-NOM		free.from.debt-NOM		eat-PR.1SG food-ACC	

‘Out of faith I set forth [into the renunciant’s life], as one endowed with the teaching of the Victor (the Buddha), *avajjā* [was] my setting forth, free from debt I eat [my] food.’

Note that in this passage *avajja-* does not appear together with *vajja-*. If this passage is to be translated as ‘my setting forth was a non-sin/sinless/without fault’, as some translators have attempted, it would be the only passage in the entire Pāli corpus where *avajja-* is used in the simplex in a context where it is not contrasted with *vajja-*. Looking deeper into this passage, we see that the Burmese and Sinhalese manuscripts have not *avajjā* here but *avañjhā* ‘not without fruit’ (: Skt. *a-vandhya-*). Furthermore, there are other places in the canon where the ‘setting forth’ of a monk into the life of a renunciant is described as *avañjha-*, e.g. *pabbajjā ahosi avañjhā saphalā* (Dīghanikāya II 251) ‘my setting forth was not without fruit, [it was] fruitful’, and similarly *pabbajjā avañjhā bhavissati saphalā* (Majjhimanikāya I 271). With the new insights provided by my analysis of the distribution of the Pāli forms *avajja-* and *vajja-*, the evidence weighs heavily in favor of the reading *avañjhā* ‘not without fruit’ and not *avajja-* ‘non-sin/sinless’ in this passage.

4.8. Conclusion

In this chapter, I examined Pā. *vajja-* ‘sin’ and *avajja-* ‘sin’ ~ ‘non-sin’, focusing in particular on the curious semantics of *avajja-*. I showed that although *avajja-* and *vajja-* are ultimately derived from different roots, due to their formal and semantic similarity, *avajja-* in its simplex forms was

reinterpreted within Pāli as ‘non-sin’, i.e. as an antonym of *vajja-*. The developments within Pāli can be explained by starting with only two forms—*avadyá-* ‘sin’ and *varjya-* ‘sin’. After undergoing regular consonant cluster assimilation, these two forms would respectively become *avajja-* and *vajja-* in Pāli. Furthermore, at an early stage, both of these words would presumably have been synonymous. However, because *avajja-* synchronically looked like a negated form of *vajja-*, *avajja-* in its simplex forms was reanalyzed as an antonym of *vajja-*, and it was no longer possible in Pāli to use *avajja-* in its original sense of ‘sin’—only *vajja-* could be used in this meaning. In the old compounds *an-avadyá-* ‘without sin’, *nir-avadya-* ‘id.’, and *sa-avadya-* ‘with sin’, however, the initial *a-* of *avadyá-* was not susceptible to semantic reanalysis as it was preceded by a semantically transparent morpheme. Thus *avajja-* in Pā. *anavajja-*, *niravajja-*, and *sāvajja-* corresponds in meaning to its Sanskrit counterpart *avadya-*. Taking parallel forms from Vedic, Ardha-Māgadhī, and Buddhist Hybrid Sanskrit into consideration, I showed how the semantic reanalysis of *avajja-* occurred only in Pāli. Furthermore, I discussed the distribution of *vajja-* and *avajja-* in Pāli, showing that *avajja-* ‘non-sin’ occurs in the simplex only when it is contrasted with *vajja-*. Finally, I argued that this approach provides definitive support for the reading *avañjhā* ‘not without fruit’ in Theragāthā stanza 789.

The Particle *u* in Vedic: Function and Etymology

5.1. Introduction

The early Indo-European languages such as Vedic, Greek, and Hittite display a variety of particles, a particularly important subtype being the enclitic particles with clausal scope that surface in the “Wackernagel position,” i.e., in second position after the first phonological word of the clause. One of these particles, namely Vedic *u*—the zero-grade variant of the morpheme reconstructed as $*h_2(\acute{e})u$ (Dunkel 1988:107)—is the focus of the present study.

The enclitic particle *u* enjoyed considerable popularity during the Vedic period. In the Rigveda alone, it occurs a total of 698 times.¹¹⁴ Although there are a few anomalies,¹¹⁵ the particle nearly always appears in the so-called Wackernagel position, where it may be hosted by a phonological word of any lexical category—pronoun, noun, adjective, verb, adverb, particle, etc.

The passages in which *u* appears typically consist of two clauses in which the particle can surface either in the first clause, the second clause, or in both clauses, as the following examples illustrate (clause boundaries are indicated by brackets):

(1) (RV 5.42.11a)

[*tám* *u* *ṣṭuhi*] [*yáḥ* *s_uviṣúḥ* *sudhánvā*]
 him-ACC PCLE praise-IMPV.2SG who-NOM with.good.arrow-NOM with.good.bow-NOM
 ‘That one praise, who has a good arrow [and] good bow ...’ (trsl. Klein 1978a:53)

(2) (RV 2.9.2a)

[*t_uvám* *dūtás*] [*t_uvám* *u* *naḥ* *paraspās*]
 you-NOM messenger-NOM you-NOM PCLE our-GEN.PL protector-NOM
 ‘Thou art [our] messenger and thou our protector.’ (trsl. Klein 1985b:31)

¹¹⁴ See Lubotsky 1997:331ff.; this figure includes the 608 instances of *u* in uncombined and combined (sandhi) forms, the 83 instances where *u* is metrically lengthened to *ū*, and the 7 instances where *u* is thought to be present but is not given in the Padapāṭha. The particle *u* in uncombined forms is given as *ūṁ* *íti* in the Padapāṭha; see Lubotsky 1993:206f. for a phonetically-based hypothesis on the length of the vowel and the nasalization. In combined forms the Padapāṭha gives *o* *íti*.

¹¹⁵ These anomalies include the 25 instances of *u* *loká-* (see Lubotsky 1997: s.v. *uloká-*, *ulokakṛt-*, and *ulokakṛtnú-*), some instances of *u* before the enclitic pronoun *tva-*, 18 instances of pāda-final *u* after the dative infinitive ending *-tavā* (see Klein 1978a:164ff.), and a few instances of *u* following *-ā* (see Klein 1978a:161f.). Bloomfield (1893) argued—convincingly in my opinion—that the collocation *u* *loká-* goes back to an original $*ulu-loká-$ ‘wide space’ with subsequent haplology; for discussion see Klein 1978a:160f. Note that, unlike Klein 1978a:155ff., I don’t assume that *u* in the 14 *vā* *u* (= *vái* *u*) passages is located in an abnormal position; the same applies for *u* following the emphatic particle *id*. See below for discussion of the *u* *tva-* and *-tavā* *u* passages.

(3) (RV 7.101.3a)

[*starīr* *u* *tvad* *bhāvati*] [*sūta* *u* *tvad*]
barren-NOM PCLE sometimes be-PR.3SG give.birth-PR.3SG PCLE sometimes
'Sometimes she is barren, and sometimes she gives birth.' (trsl. Klein 1978a:17)

This chapter is arranged as follows. In Section 5.2. I give a summary of the previous proposals of Klein 1978ab, 1985b and Dunkel 1997 regarding the function and etymology of the Vedic particle *u*. In Section 5.3. I highlight some problems with these approaches and offer a new proposal to better explain the basic function and etymology of the particle. Section 5.4. provides a summary and ideas for future research.

5.2. Previous proposals on Vedic *u*

5.2.1. Klein's proposal

Klein (1978ab, 1985b) proposes that the employment of the particle *u* can be reduced to two basic roles: an anaphoric function¹¹⁶ and a conjunctive function. Furthermore, Klein (1978b:9f.) argues that the anaphoric function is historically older and that the conjunctive function arose in pre-Vedic times through reinterpretation of the originally anaphoric particle in certain contexts. According to Klein (1985b:7), "[t]he conjunctive roles of *ca* and *utá* are both evident and ubiquitous, irrespective of whether these forms follow nouns, verbs, pronouns, preverbs, or other particles. In the case of *u*, however, the precise syntactic role of the particle is far less apparent and differs somewhat based upon the environment in which it occurs." In order to clarify these various environments, Klein begins his analysis in both his 1978a and 1985b studies by cataloging the particle *u* according to the elements which act as its host. We learn that *u* follows the anaphoric *sá-/tá-* pronoun 90x, other pronouns 148x, preverbs 85x, nouns and adjectives 66x, verbs 32x, adverbs 20x, etc.¹¹⁷ Klein (1985b: 11) points out that "the most common position of *u* by far is adjacent to (almost always following) a pronoun. Particularly prominent in this group are 90 occurrences of *u* with *sá/tá-*." According to

¹¹⁶ In his 1978 studies, Klein labeled this function of the particle as "coreferential." Note that the term anaphora is used in Klein 1985b to refer to both grammatical anaphora (referring back to an antecedent) and rhetorical anaphora (clause-initial repetition of a word); see Klein 1985b:18.

¹¹⁷ These figures are according to Klein 1985b:7ff.; see also Klein 1978a:17.

Klein (1978b:9), when *u* follows the *sá-/tá-* pronoun, it reinforces the coreference of this pronoun with its referent.

For the anaphoric function of *u*, Klein cites constructions like RV 1.156.2cd below in which the particle appears after the anaphoric pronoun *sá* ‘that one’ (plus the particle *íd*), which refers to its antecedent *yó* ‘the one who’:

(4) (RV 1.156.2cd)

[*yó jātám asya maható máhi brávat*]
 who-NOM birth-ACC his-GEN great-GEN great-ACC announce-SUBJ.3SG
 [*séd u śrávobhir yújyaṃ cid abhy āsat*]
 he-NOM PCLE fame-INS.PL peer-ACC even PVB be.superior-SUBJ.3SG
 ‘The one who shall announce the great birth of him, the great one, that one shall be superior in fame even to his peer.’ (trsl. Klein 1985b:12)

According to Klein, the anaphoric function of *u* also is displayed in passages like (5) in which the particle is hosted by the anaphoric pronoun *tān* ‘those’, which refers to the preceding noun *strīyaḥ* ‘women’ and cases like (6) in which *u* appears after the iterated anaphoric pronoun *tám* ‘that one’, which itself has the same referent as the preceding *tám*:

(5) (RV 1.164.16a)

[*strīyaḥ satīs*] [*tān u me puṃsā āhuḥ*]
 women-NOM.PL being-NOM.PL those-ACC.PL PCLE me-DAT men-NOM.PL say-PF.3PL
 ‘The ones who are [really] women, those have they said to me to be men.’ (trsl. Klein 1985b:13)

(6) (RV 8.23.7c)

[*tám ayā vācā gr̥ṇe*] [*tám u va stuṣe*]
 him-ACC this-INS speech-INS sing-PR.1SG him-ACC PCLE you-DAT praise-PR.1SG
 ‘That one with this speech do I sing. And that one do I praise for you.’ (trsl. Klein 1978a:60)

An example of the conjunctive function of the particle is (7), in which, according to Klein’s model, *u* functions as a coordinate conjoiner of clauses in which no anaphoric terms are present:

(7) (RV 10.95.18cd)

[*prajā te devān haviṣā yajāti*]
 offspring-NOM your-GEN heavenly.ones-ACC.PL oblation-INS worship-SUBJ.3SG
 [*suvargā u tvám āpi mādayāse*]
 heaven-LOC PCLE you-NOM in exhilarate.oneself-PR.2SG
 ‘Thy offspring shall worship the heavenly ones with an oblation, and thou shalt exhilarate thyself in heaven.’ (trsl. Klein 1978a:16)

Klein proposes that the channel by which an original anaphoric *u* was reinterpreted as a conjunction was a construction like that seen above in (6), where we see the iteration of the anaphoric pronoun in the sequence *tám ... tám u*. Klein (1985b:52) argues that because repetition of this sort is “a universal exponent of discourse cohesion and secondarily of conjunction,” *u* in such a sequence was prone to being reinterpreted as a coordinate conjunction: ‘that one...and that one’. Once this reinterpretation had taken place, *u* as a conjunction then secondarily spread to constructions like that in (7), where no coreferent terms are present.

Klein argues that the distinction between the anaphoric and conjunctive functions of the particle is illustrated most clearly in the difference between *u* in the correlative *yá- ... sá-/tá- u* construction (see (4) above) and *u* elsewhere. He states that *u* in the *yá- ... sá-/tá- u* construction “cannot be considered conjunctive (*‘which one ... and that one’), whereas [*u* in] each of the remaining sequences can” (Klein 1985b:18).

In syntactic terms, note that we can restate the proposed difference between the anaphoric and conjunctive functions of *u* as follows: (1) *u* displays its original anaphoric function when it appears in a subordinate clause-main clause (or vice versa) type of construction and is hosted by the *sá-/tá-* pronoun;¹¹⁸ these are the passages in which *u* is not translatable as ‘and’; (2) *u* is a coordinate conjunction translatable as ‘and’ when it links independent clauses. These two points will become relevant in the discussion below.

For the etymology, Klein connects Vedic *u* with the PIE distal-deictic particle **u* which is attested in the Proto-Indo-Iranian distal-deictic pronoun **sāu-/amu-/aya-*. To get from a PIE distal-deictic particle **u* to Vedic *u* in its anaphoric function, Klein (1978a:201) states that “[in its anaphoric function,] *u* refers back coreferentially to what has been previously mentioned and has retained in syntactic function its original characteristic of distal reference.”

¹¹⁸ Klein (1985b:53) describes the function of *u* as “cataphoric” when it appears in an inverted *sá-/tá- u ... yá-* or *sá-/tá- u ... noun* type of sequence and sees this as resulting from the fact that subordinate clauses could optionally follow main clauses. According to Klein (1978a:188), the sequence *yám u ... tám u* as in RV 3.53.21d is a conflation of the anaphoric and cataphoric types.

5.2.2. Dunkel's proposal

Dunkel (1997:158) agrees with Klein's conclusion that Vedic *u* has distinct anaphoric and conjunctive functions and states that *u* in the *yá- ... sá-/tá- u* construction can be understood "only as coreferent." In contrast to Klein, however, he argues that the conjunctive function is more archaic, the anaphoric function representing an inner-Indic innovation that arose from a reinterpretation of the conjunctive function. Dunkel also proposes a living distal-deictic function for Vedic *u* which is a direct reflex of the PIE distal-deictic particle **u*. According to Dunkel (1997:172), this is evidenced in passages such as RV 10.56.1a [*idám*_{this-NOM} *ta*_{thine-GEN} *ékam*_{one-NOM}] [*pará*_{that-NOM} *ū* *ta*_{thine-GEN} *ékam*_{one-NOM}], which he translates as "This one is thine; the far one there is thine."

In addition to stemming from PIE distal-deictic **u*, Dunkel (1997:161f.) argues that Vedic *u* also originates from a PIE conjunctive particle **h₂u*.¹¹⁹ Due to the loss of the laryngeals at some stage of the Vedic period, a process of "particle syncretism" was triggered whereby PIE **u* and **h₂u* became Vedic *u*, a single particle originating from two distinct protoforms. In summary, Dunkel proposes that Vedic *u* encompasses three functions—conjunctive, anaphoric, and distal-deictic—the conjunctive and distal-deictic functions being equally old, and the anaphoric function representing a later reinterpretation of the original conjunctive function.

5.3. Critique of Klein and Dunkel's proposals

For the sake of clarity, let me state the main points I will be arguing below: (1) An anaphoric function for the particle *u* and a connection with PIE distal-deictic **u* have not been convincingly demonstrated; (2) Vedic *u* has a uniform connective¹²⁰ function in both independent clauses and dependent clauses; (3) A new approach to Vedic *u* which takes into account more recent findings on the function of discourse particles may yield significant insights.

¹¹⁹ According to Dunkel (1997:164), **h₂u* is a "suppletive allomorph" of **h₂o*, which he posits as a protoform for Hittite geminating *-a* 'also' and other forms. See Section 5.3.4. below.

¹²⁰ On the term "connective", see Kroon 1995:40.

5.3.1. Syntactic and prosodic factors

One of the important insights of more recent studies on clitic behavior is that the apparent piling up of clitics in the “second position” of a clause is actually the result of different algorithms operating on different classes of clitics. For Vedic, it has been shown that the surface position of coordinate conjunctive/disjunctive clitics like *ca* ‘and’ and *vā* ‘or’ is determined by a different process than that of pronominal clitics (Hale 2007:200). In contrast to pronominal clitics, conjunctive clitics like *ca* and *vā* sit at the left edge of their cliticization domain in a syntactically well-defined position. As clitics in Vedic must have a phonological host on their left, they cannot surface *in situ* and therefore make a minimal movement in the phonology to a position within their domain where they can be appropriately hosted (Hale 2007:204ff.). This cross-linguistically well-attested phenomenon is known as prosodic inversion (Halpern 1995:62ff.).

Examples (8), (9), and (10) below, however, indicate that *u* is located in a different position in the syntax than clause-linking *ca* or *vā*:

(8) (RV 3.24.4c)

yajñēṣu *yá* *u* *cāyávaḥ*
worships-LOC.PL who-NOM.PL PCLE showing.respect-NOM.PL
‘... and those who show respect at the worships.’ (trsl. Klein 1985b:23)

(9) (RV 5.3.5c)

viśás *ca* *yásyā* *átithir* *bhāvāsi*
clan-GEN and whose-GEN guest-NOM become-SUBJ.2SG
‘And of whose clan thou shalt become the guest ...’ (trsl. Klein 1985a:218)

(10) (RV 2.23.7a)

utá *vā* *yó* *no* *marcáyād* *ánāgaso*
also or who-NOM us-ACC.PL harm-SUBJ.3SG innocent-ACC.PL
‘... or also who would harm us, though innocent ...’ (trsl. Hale 2007:208)

In opposition to *ca* and *vā*, which appear after the topicalized element and before the wh-word, *u* does not appear to the left of the wh-word, even when a topicalized element is present.¹²¹ This suggests that the particle *u* is more closely bound to the CP and, unlike *ca* and *vā*, is not located in a position higher than the topicalized element (the Topicalized Phrase (TopP) described in Hale

¹²¹ For *u*, there are four passages in the RV which illustrate this patterning: 3.24.4c, 4.5.11d, 8.64.8c, and 8.64.9c. See Hale 2007:208 on the position of clitics like *vā* and *ca*. The exact scope of *ca* in 2.11.14c is hard to judge; see Klein 1985a:223ff.

2007:197). This has the consequence that *u* always follows the first phonological word of the CP, even when an element is fronted to a position above the CP.

Based on these observations, I argue that Vedic *u* is positioned in the syntax left-adjoined to the CP¹²² and that a subsequent process of prosodic inversion causes it to surface in second position. The template for *u* before inversion can be represented as follows: (*u*) [CP₁ X Y Z] (*u*) [CP₂ X Y Z], where X is a phonological word.¹²³ The parentheses around *u* indicate that either the first or second *u* may be optionally omitted (see exx. RV 5.42.11a, 2.9.2a, and 7.101.3a above). Because *u* is not properly hosted in this figure, inversion occurs as a phonological repair mechanism, resulting in the surface form [CP₁ X=(*u*) Y Z] [CP₂ X=(*u*) Y Z].

While it is hard to come by, there is some indirect evidence for the initial position of *u* before undergoing prosodic inversion. These are the odd-looking *u tva-* passages discussed in Hale 1996:188f.¹²⁴ Hale proposes that in the syntax, *u* is positioned as usual at the left periphery of its clause and the enclitic pronoun *tva-* is in the SPEC position of the VP. As *tva-* itself is an enclitic, it cannot provide a host for *u* and thus no prosodic flip occurs. But because both *u* and *tva-* need a host, they are incorporated into the prosodic domain of another element, which in the example below is the VP:

- (11) (RV 10.71.11d)
yajñásya mâtṛāṃ ví mimīta u tvaḥ
 sacrifice-GEN meter-ACC PVB measure.out-PR.3SG PCLE another-NOM
 ‘... and another measures out the meter of the sacrifice.’ (trsl. Hale 1996:189)

Note that when *tva-* is preceded by the orthotonic conjunction *utá*, as in RV 10.71.4a *utá tvaḥ páśyan ná dadarśa vācam* ‘and one, though looking, has not perceived speech’, it appears in the SPEC of the VP.

¹²² See the template in Hale 1996:184; the position of *u* relative to the TopP and the CP indicates that the particle is positioned where adverbs adjoined to the CP are normally positioned.

¹²³ See also the template in Hale 1996:187.

¹²⁴ There are eight of these *u tva-* collocations: 1.113.5b, 7.101.3a[bis], 8.100.3c, 10.71.7c, 10.71.7d, 10.71.8d, and 10.71.11d. Note that four of the eight are in the same hymn.

5.3.2. Scope

While implicitly treating *u* as a sentence particle, previous approaches confusingly focus almost exclusively on the word which serves as its host, using this as a basis for discerning the function of the particle. As noted above, Vedic *u* is not sensitive to the lexical category of the word that serves as its host. The slightly more frequent appearance of *u* after anaphoric pronouns, which forms one of the bases of arguments for an anaphoric function, also receives a natural explanation in this approach. A common position for accented pronouns of all types is clause initial, thus we expect to see pronouns frequently appearing as the host for *u*. The fact that *u* is hosted by an anaphoric pronoun 90 times tells us no more about the particle than the 85 appearances of *u* after preverbs. Vedic *u* as a clause-connecting particle is of course compatible with linking clauses which begin with anaphoric pronouns; however, in this approach anaphoric reference is regarded as a feature carried by the anaphoric pronoun itself and is not necessarily associated with the particle *u*.¹²⁵

5.3.3. Other problems

We have argued that the presence of an anaphoric pronoun acting as a host for *u* does not allow us to conclude that the particle's function is anaphoric. In addition to this problem, the proposal that Vedic *u* was originally only anaphoric and later, through reinterpretation, took on a conjunctive function, also encounters problems when we look at the internal history of the RV. Klein (1978a:193) acknowledges that both functions are fairly equally represented in the oldest layers of the text and notes that if we are to assume a historical development for the particle *u*, we must assume that this occurred during the pre-Vedic period, thus making our inferences much less secure.

Klein (1985b:18) states that *u* in the *yá- ... sá-/tá- u* construction "cannot be considered conjunctive (*'which one ... and that one')", and by this he means that *u*, if defined as a coordinate conjunction, should not be licensed to appear in such contexts. As discussed above, the two distinct functions of Vedic *u* which have been proposed can be restated in syntactic terms as follows: (1) *u*

¹²⁵ The connective function of *u* is of course also compatible with passages that exhibit anaphora in the rhetorical sense. The feature of rhetorical anaphora that has been pointed out for passages with Vedic *u* may stem from a more fundamental function of *u* as a marker of parallel focus; for a similar function observed for the Latin particle *autem*, see Kroon 1995:229ff.

displays its original anaphoric function when it appears in a subordinate clause-main clause (or vice versa) type of construction and is hosted by the *sá-/tá-* pronoun; (2) *u* functions as a coordinate conjunction when it links independent clauses.

Obviously, if we conclude that the function of *u* is like that of the modern English coordinate conjunction ‘and’, it follows that *u* should not appear in such subordinate contexts. However, the Vedic evidence suggests that *u* is not in fact akin to a coordinate conjunction like Eng. ‘and’. First, as pointed out above, *u* does not appear to be positioned in the syntax like the coordinate conjunction *ca*. Second, there are two passages in the RV where *u* appears together with *ca*, namely, *co* (= *ca ū*) in 6.66.3b and *u ca* in 10.15.13b. Because the clitic chain in both of these passages is hosted by a relative pronoun that involves coreference and rhetorical anaphora, respectively, Klein (1985b:20) explains the function of *u* here as anaphoric. As we have seen that there are no compelling reasons to assume an anaphoric function for *u*, the co-occurrence of the particle with *ca* is strong evidence that *u* is not a coordinate conjunction.¹²⁶

Lastly, it is worth suggesting here that the approach argued for here may provide a solution to the eighteen dative infinitive *-tavā u* passages in which *u* appears in pāda(line)-final position. Taking these infinitives as result or additive clauses, *u* may have functioned here to link this clause with the preceding main clause.¹²⁷ See the following example:

- (12) (RV 5.29.2d)

[<i>apó</i>	<i>yahvīr</i>	<i>asṛjat</i>]	[<i>sártavā</i>	<i>u</i>]
waters-ACC.PL	lively-ACC.PL	release-IMPF.3SG	flow-DAT.INF	PCLE

‘[Indra] released the lively waters, so that [they could] flow.’

That the dative infinitive was joined to its clause in this way by the particle *u* was in fact first suggested by Thurneysen in his famous 1908 paper on this problem. Thurneysen argued that an original sequence **sártave vái u*, formed at a time when *e* was still pronounced as [ai], was reduced by subsequent haplology to *sártavā u*. This of course also explains the unusual double accent.

¹²⁶ Note that *u ca* occurs in Vedic prose even in passages that involve no anaphoric pronoun: *parástād arvāk prā vṛñite, parástād dhy ārvācyah prajāh prajāyante, jyāyasas pátaya u caivaitán ní hnute* (Śatapatha-Brāhmaṇa (Kāṇva) 1.5.1.10) ‘von hinten (vom ältesten) abwärts nennt er die Ahnen, denn von hinten abwärts pflanzen sich die Geschöpfe fort, und auf diese Weise entschuldigt er sich zugleich gegenüber dem Herrn des Alters’ (trsl. Delbrück 1888:474).

¹²⁷ This behavior may be similar to that pointed out by Kroon (1995:269) for Lat. *autem*, which can occur in clauses that have an additive relationship to the preceding clause.

However, it is often overlooked that Thurneysen pointed out that both *vái* and *u* are sentence particles and that the dative infinitive must therefore have originally been an independent “clausette” (Sätzchen). As there are examples in which the infinitival clause does not begin just before the infinitive—thus causing *vái* and *u* not to appear in second position—Thurneysen suggested that *-tavā u* retained its archaic pāda-final position but was used by poets as a formula in new environments. Although somewhat speculative, this solution is compatible with my analysis of Vedic *u* and seems to me more attractive than taking the particle as a meaningless syllable to fill out the remaining slot of the meter (Klein 1978a:166).

5.3.4. Etymology of Vedic *u*

Below, I present a brief summary of the particles from the various Indo-European languages which in my view exhibit the closest formal and functional similarity with Vedic *u*:¹²⁸

- a. Greek αὖ ‘again, moreover, on the other hand, on the contrary’, a connective particle which appears in the second position of its clause (Wackernagel 1892:377); also the related particles αὖτε and αὐτάρ.¹²⁹
- b. Italic: Oscan *aut* usually ‘but’, sometimes ‘or’; Oscan *auti* ‘or’; Umbrian *ute/ote* ‘or’ (Untermann 2000:136f.); Latin *autem* ‘on the other hand, but’; *aut* ‘or’.¹³⁰
- c. The Gothic enclitic particle *-uh* (< PIE **h₂u-k^{we}*).¹³¹
- d. Iranian: perhaps Old Avestan (Y. 35.6) *āādū* (=Vedic *ād u*), a hapax form in which the particle **u* appears with the connective **ād* (Narten 1986:111ff.).
- e. ?Anatolian: Hittite geminating *-a* (written as *-ya* after vowels) ‘also’;¹³² Luwian *-ha* ‘and’. Dunkel (1997) reconstructs PIE **h₂o* for these forms, which he states is a suppletive morpheme to PIE **h₂u*.

¹²⁸ The cognates listed here are primarily based on Dunkel 1988 and 1997.

¹²⁹ See Klein 1988 on αὖ and Bonifazi 2009 on αὖ, αὖτε, and αὐτάρ.

¹³⁰ For detailed discussion of Lat. *autem*, see Chapter 10 of Kroon 1995.

¹³¹ See Klein & Condon 1993.

¹³² See Melchert 2009 and 1984:164f.

Although careful philological screening is necessary before we can draw any solid conclusions about which forms are cognates, I follow Dunkel (1988:107) for the time being and reconstruct $*h_2(\acute{e})u$ as a protoform.

As noted above, both Klein and Dunkel argue that Vedic *u* stems from PIE distal-deictic $*u$ (Dunkel of course argues that *u* also originates from $*h_2u$). Klein (1978a:201) proposes that in the supposed anaphoric function of Vedic *u*, the particle “refers back coreferentially to what has been previously mentioned and has retained in syntactic function its original characteristic of distal reference.” I find this statement puzzling. In the case of the Proto-Indo-Iranian distal-deictic pronoun $*sāu-/ *amu-/ *aya-$, which likely contains the distal-deictic particle $*u$, this demonstrative is used exophorically and has clear distal reference. Anaphoric reference, however, refers to endophoric reference and it is not at all obvious how this would be related to distal deixis. Note that $sá-/ tá-$ *u* does not appear to refer to something additionally more anterior in the discourse. In any case, Klein offers no arguments or parallel examples for how an original distal-deictic particle in PIE could have become an anaphoric particle in Vedic.

Dunkel’s conception of PIE $*u > \text{Ved. } u$ is much more concrete in that he proposes that Vedic *u* has a living distal-deictic function, purportedly seen in passages such as RV 10.56.1a [*idám ta ékam*] [*pará ū ta ékam*], which he translates as “This one is thine; the far one there is thine.” However, we quickly find that *u* can also appear after near-deictic pronouns such as *idám*.¹³³ Because *pará* in the above passage already has distal reference, there is no way to verify if *u* itself also has distal reference. Until more compelling arguments can be made, I believe that the distal-deictic hypothesis should be abandoned.

5.4. Conclusion

Previous approaches to Vedic *u* have tended to overemphasize what kind of word serves as its host, using this as a basis for discerning the function of the particle. As the particle has scope over its whole clause and not only the preceding word, approaches to Vedic *u* like Klein’s which seek to

¹³³ See RV 4.5.9a.

determine the particle's function based on the element that precedes it are ill-founded. I argued that the enclitic particle *u* functions as a connector of clauses and that it is positioned in the syntax left-adjoined to its clause. However, clitics in Vedic must have a phonological host on their left. As *u* cannot surface *in situ*, the particle makes a minimal movement in the phonology to a position within its domain where it can be appropriately hosted. This approach draws from the theoretical framework proposed in Halpern 1995 and Hale 2007:204ff.

Klein has argued that *u* in its conjunctive function is a coordinate conjunction. Important evidence was adduced to demonstrate that this is incorrect. Additional details on possible cognates in other Indo-European languages were discussed, and I argued that Ved. *u* is not historically related to the PIE distal-deictic particle **u*. I concluded that the particle *u* in the RV functions primarily as a connector of clauses, and that these clauses can be both dependent and independent.

CHAPTER SIX

Summary of Findings

In Chapter One, “On the Rigvedic Optative *vidhéma* and the Root *vidh-*”, I discussed in detail the origin, forms, meaning, syntax, and suppletive relationships of the Vedic root *vidh-*. Thieme (1949:36f.) first proposed an etymology of the root *vidh-* in which he argued that this root was secondarily abstracted from certain root aorist forms of the preverb + verb collocation *ví-dhā-* ‘distribute’. Thieme’s ideas were later supported and expanded upon by Hoffmann (1969), and the views of these two scholars on this issue are now widely accepted.

Hoffmann argued that the 1pl. optative form *vidhéma* should be traced back to a Pre-RVic ** $\text{ui-d}^h\acute{a}H\text{-i}H\text{-ma}$* , a form which—minus the preverb—ultimately stems from a Proto-Indo-European root aorist optative ** $d^héh_1\text{-ih}_1\text{-me}$* . As shown by Greek root aorist optatives of the type $\theta\epsilon\acute{\iota}\mu\epsilon\nu$ < PIE ** $d^héh_1\text{-ih}_1\text{-me}$* , this reconstruction with full grade root (** $d^héh_1\text{-}$*) + zero grade optative marker (** $\text{-ih}_1\text{-}$*) is justified for late Proto-Indo-European (Hoffmann 1969:5, 1968, Jasanoff 1991, 2009:49f.). In Vedic, however, root aorist optatives built to laryngeal final roots were all rebuilt with a sequence *-eyā-*: ex. *stheyāma* ‘stand’ [1pl.] ← pre-Vedic **sthéma* < PIE ** $stéh_2\text{-ih}_1\text{-me}$* (cf. Greek $\sigma\tau\alpha\acute{\iota}\mu\epsilon\nu$). In Hoffmann’s scenario, a Pre-RVic root aorist optative **vidhéma* (< ** $\text{ui-d}^h\acute{a}H\text{-i}H\text{-ma}$*) escaped being regularly rebuilt to **vidheyāma* because it was analyzed synchronically as a thematic aorist optative to a new root *vidh-*, i.e., ** $\text{uid}^h(H)\text{-á-i}H\text{-ma}$* .

Turning now to the aorist participle *vidhánt-*, we note that Vedic roots in *-ā* (< Proto-Indo-European laryngeal final roots) typically show a long vowel when forming a root aorist participle: exx. *pānt-* from the root *pā-* ‘drink’, *sthánt-* from the root *sthā-* ‘stand’. If, as Thieme and Hoffmann argue, *vidhánt-* derives from *ví-dhā-*, we would thus expect **vidhánt-*. To explain the irregular short vowel in *vidhánt-*, Hoffmann appeals to the fact that root aorist participles to roots not ending in *-ā* show zero grade of the root: exx. *gmánt-* (root aorist of *gam-* ‘go’), *kránt-* (root aorist of *kar-* ‘do’). Additional evidence adduced from root aorist participles such as OAv. *dañtō* (to the root *dā-* ‘do, place’) and Gk. $\theta\epsilon\acute{\iota}\varsigma$, $\theta\acute{\epsilon}\nu\tau\omicron\varsigma$ ‘placing’ show that zero grade of the root was also likely the norm for laryngeal final roots in Proto-Indo-European. Hoffmann (1969:4f.) argued that the extraction of *vidh-* from *ví-dhā-* took place at a time before the Rigveda when an old zero grade root aorist

participle **vi-dhánt-* still existed. Similar to the scenario posited for *vidhéma*, a pre-Vedic root aorist participle **vi-dhánt-* is assumed to have escaped secondary lengthening to **vi-dhānt-* because it was analyzed synchronically as a thematic aorist participle to a new root *vidh-*.

If Thieme and Hoffmann’s ideas about the origin of *vidhéma* and *vidhánt-* are correct, these forms provide important evidence that root aorist optative and participle formations to laryngeal final roots still preserved their archaic vocalism up to a time preceding the attestation of the Rigveda. This has important implications for our understanding of how root aorist optatives and participles formed to laryngeal final roots developed from Proto-Indo-Iranian to Vedic.

I drew from multiple lines of evidence to show that Thieme and Hoffmann’s proposal that forms such as *vidhéma* and *vidhánt-* reflect archaic root aorist forms of *ví-dhā-* must be abandoned. Furthermore, I showed that Thieme and Hoffmann’s ideas about the origin of the root *vidh-* need refinement and modification. I argued that *vidh-* was not abstracted from *ví-dhā-* within Indo-Iranian but that it most likely goes back to an independent root that already existed in Proto-Indo-European, as shown by probable cognates in Latin and Tocharian. This root is **h₁uid^h(h₁)-* ‘divide, distribute’, which itself most likely goes back to an original compound **dui-d^h(e)h₁-* ‘place in two, divide’ in which the first member of the compound was incorporated into the root (Lubotsky 1994:204). At least in Indo-Iranian, the root *vidh-* built only thematic aorists, and the optative form *vidhéma* and participle *vidhánt-* are to be interpreted as such both diachronically and synchronically—they are not relics of archaic forms. Finally, I discussed in detail the semantics, syntax, and suppletive relationships of *vidh-* in the Rigveda and argued that the apparent meaning ‘distribute’ for *vidh-*—a meaning which is often used to support an etymological connection with *ví-dhā-*—is difficult to motivate when compared to other semantically and syntactically similar verbs.

In Chapter Two, “A “Lost” *i*-stem: Pāli *piṭṭhi-* ‘back’”, I discussed the Pāli *i*-stem *piṭṭhi-* ‘back’, which exists alongside an *a*-stem *piṭṭha-* ‘id.’ While the *a*-stem in Pāli corresponds to Ved. *pr̥sthá-* ‘back’, we find no word in Vedic corresponding to Pā. *piṭṭhi-*. It has been claimed that Pā. *piṭṭhi-* corresponds to Ved. *pr̥ṣṭí-* ‘rib (cage)’ (CDIAL), but a serious problem with this approach is that it does not provide a satisfying way to explain the semantic difference between ‘back’ and ‘rib’. Although Pā. *piṭṭhi-* is not cited in his etymological dictionary, Mayrhofer (*EWAia* II:165) notes that

the Middle Indo-Aryan and Iranian forms showing an *i*-stem (Young Avestan *paršti*, Sogdian *prc(h)*, etc.) all have the meaning ‘back’ and are therefore better grouped with Ved. *pr̥sthá-* ‘back’ than Ved. *pr̥ṣṭi-* ‘rib (cage)’.

It has long been thought that Ved. *pr̥sthá-* goes back to a Proto-Indo-European *o*-stem **pr̥-sth₂-ó-* ‘standing forth, prominent’, where the back of an animal is viewed as the prominent part of its anatomy, and Mayrhofer (loc. cit) proposed that the *i*-stem forms also go back to a closely related stem **pr̥-sth₂-í-*. While these details are fairly clear, the relationship between the *o*-stem and *i*-stem has not been fully explored. It would be preferable if we could relate them in a systematic manner.

I argued that Pā. *piṭṭhi-* and *piṭṭha-* (: Ved. *pr̥sthá-*) should be reconstructed as **pr̥-sth₂-í-* and **pr̥-sth₂-ó-*, where the *o*-stem functioned in Proto-Indo-European as an adjective meaning ‘prominent’ and the *i*-stem as a feminine abstract meaning ‘prominence’. This explanation is based on Schindler's elucidation of the Sanskrit *cvi*-formation (Schindler 1980). Vedic and Pāli substantivized the *o*-stem adjective, and the *i*-stem abstract later became a concrete noun in Pāli and Iranian. I argued that this approach also provides an attractive explanation for the cognate forms in Balto-Slavic meaning ‘finger’ (Lith. *pīr̃štas*, Latv. *pīr(k)sts*, OPr. *pīrsten*, OCS *pr̥stŭ*) and forms in Germanic meaning ‘ridge of a roof’ (ON *fyrst*, OHG *first*, OE *first*). The Balto-Slavic forms go back to the *o*-stem **pr̥-sth₂-ó-* ‘prominent’, and in contrast to the Indo-Iranian words for ‘back’ which show that prominence was taken in this branch to refer to an upward direction, the meaning ‘finger’ in Balto-Slavic shows that prominence was taken in the sense of extension out from a central point (note the semantic parallel with English ‘extremities’ in the sense of ‘fingers/toes’). In Germanic, the forms have all undergone the effects of umlaut, showing that they should be traced back to the *i*-stem **pr̥-sth₂-í-*. As the meaning ‘ridge of a roof’ shows, Germanic, like Indo-Iranian, interpreted prominence in an upward direction.

As Schindler (1980:390) pointed out, this derivational process of forming *i*-stem abstracts to *o*-stem adjectives remained synchronically productive only in Slavic. Outside of Slavic, the forms generated by this former system lie scattered among the various branches, some pairs being preserved in a single branch while others are attested in separate branches. Since it is relatively

uncommon to find both stems preserved in Indo-Iranian, a comprehensive survey was conducted to see if there were any semantic and/or functional differences between the *a*-stem and *i*-stem forms in Pāli and Avestan that may have contributed to their preservation. Specifically, my survey showed that in both Pāli and Avestan, the *i*-stem seems to be the unmarked term for ‘back’. The *a*-stem on the other hand was relegated to use as a postposition in Pāli while it appears to function as a noun with agential semantics in Young Avestan.

In Chapter Three, “Root-final Consonant Variation: Av. *aēsma*- ‘firewood’ and *uruuād*- ~ *uruuāz*- ‘be joyful’ vs. Ved. *idhmá*- ‘firewood’ and *vrādh*-”, I discussed two cases in which forms in Avestan show variation in their root final consonant when compared to related forms in Vedic or Avestan. The first case involves the word for ‘firewood’ in Avestan and Vedic. The second case involves the difficult Avestan root *uruuād*- ~ *uruuāz*- ‘be joyful’ and the related Vedic root *vrādh*-.

While YAv. *aēsma*- and Ved. *idhmá*- are clearly nominal formations in *-ma* built to the Proto-Indo-Iranian root **Hajdʰ*- ‘kindle’ (< PIE **h₂ejdʰ*-), *aēsma*- shows an *-s* before the suffix *-ma* while Vedic shows *-dh*. Based on the alleged existence of a Vedic *s*-stem *édhas*- ‘firewood’, Bartholomae (*AiW* 27, 1894–5:21) reconstructs for YAv. *aēsma*- a Proto-Indo-Iranian form **Hajdʰ-zʰ-ma*- (< PIE **h₂ejdʰ-s-mo*-), i.e., a form in which the suffix **-ma* is not added directly to the root **Hajdʰ*- but to the *s*-stem **Hajdʰ-zʰ*-. While Bartholomae’s reconstruction is accurate, I argued that citing a Vedic *s*-stem *édhas*- in this context is misleading, as the evidence for such a stem is extremely weak. The *s*-stem underlying the Proto-Indo-Iranian form **Hajdʰ-zʰ-ma*- should rather be seen as belonging to the following group of old Indo-European *s*-stem derivatives:

- a. **h₂ejdʰ-s-mo*-: Av. *aēsma*- ‘firewood’, perhaps also Lith. *iesmẽ* ~ *iesmė* ‘Fracht, Holz zum einmaligen Einheizen des Ofens’
- b. **h₂ejdʰ-s-on*-: OIc. *eisa* ‘glowing embers’
- c. **h₂ejdʰ-s-to*-: OE. *āst* ‘kiln (for drying hops or malt)’
- c'. *u*-stem abstract to **h₂ejdʰ-s-to*-: Lat. *aestus* ‘heat’
- d. **h₂ejdʰ-s-teh₂t*-: Lat. *aestās* ‘summer’

Turning now to Ved. *idhmá-*, a form which differs from YAv. *aēsma-* not only in its root final consonant *-dh* but also in its zero grade vocalism, I argued that the identical gender and semantics of *idhmá-* and *aēsma-* and also the similar contexts in which they appear point to a closer historical relationship between these forms than may appear from their surface differences. Specifically, I argued that, like YAv. *aēsma-*, Ved. *idhmá-* is not built with the suffix *-ma* directly added to the root but to an underlying *s*-stem. As *s*-stem derivatives may show full or zero grade in the root, positing an *s*-stem as the derivational basis also provides a satisfying way to explain the difference in vocalism between the Vedic and Avestan forms.

In the second half of Chapter Three, the root final consonant variation seen in Avestan *uruuād-* ~ *uruuāz-* was discussed in detail, and comparison with the related Vedic root *vrādh-* was presented. Since Bartholomae (*AiW* 1544), the root final *-z* in Avestan *uruuāz-* is usually considered to go back to the inchoative verbal suffix *-sa* (< PIE **-sḱ%*), i.e., PIIr. **uraHd^h-śća-*. I argued that this view is problematic in two regards. First, the full grade in the root in **uraHd^h-śća-* is anomalous, since stems of this type typically show a zero grade root. A stem like Av. **var^əza-* < PIIr. **urHd^h-śća-* is thus to be expected rather than the attested *uruuāza-*. Second, as a simple thematic present YAv. *uruuā^əθən* apparently exists for this root, Bartholomae's approach entails that a simple thematic present existed beside a present stem formed with the verbal suffix *-sa*. This would be a pairing of verbal stems that is without any other parallels in Avestan.

Pace Bartholomae, I argued that the *-z* in the root *uruuāz-* most likely had its origin in a sibilant other than that in the present verbal suffix *-sa*. An *s*-stem to the root *uruuād-* is securely attested in OAv. *uruuādah-*, and the evidence of the comparative OAv. *uruuāⁱdiiah-* and also likely *uruuāz^əman-* strongly suggest that the root participated in the Caland system. In *uruuāz^əman-*, which we may regard historically as an *s*-stem based derivative (i.e., **uraHd^h-z^h-man-* < **uraHd^h-s-man-*), the *-z* would have been induced by the *-s-* of the *s*-stem. In Avestan, dentals were lost in any sequence in which they were followed by a sibilant. With the dental no longer visible synchronically, the root in such a form would be easily reanalyzed as *uruuāz-*.

For the semantics of the root in Vedic and Avestan, I argue that we should set up for Proto-Indo-Iranian a root **uraHd^h-* with a meaning 'be/become joyful'. Through careful philological discussion,

I show that the meaning of the Proto-Indo-Iranian root was largely preserved in Avestan, while in Vedic it was considerably distorted by association with the nearly homophonous root *vardh-* ‘grow, become strong’.

In Chapter Four, “Pāli *avajja-* and *vajja-*: A Study in Semantic Reanalysis”, I examined Pā. *vajja-* ‘sin’ and *avajja-* ‘sin’ ~ ‘non-sin’, focusing in particular on the curious semantics of *avajja-*. I showed that although *avajja-* and *vajja-* are ultimately derived from different roots, due to their formal and semantic similarity, *avajja-* in its simplex forms was reinterpreted within Pāli as ‘non-sin’, i.e. as an antonym of *vajja-*. The developments within Pāli can be explained by starting with only two forms —*avadyá-* ‘sin’ and *varjya-* ‘sin’. After undergoing regular consonant cluster assimilation, these two forms would respectively become *avajja-* and *vajja-* in Pāli. Furthermore, at an early stage, both of these words would presumably have been synonymous. However, because *avajja-* synchronically looked like a negated form of *vajja-*, *avajja-* in its simplex forms was reanalyzed as an antonym of *vajja-*, and it was no longer possible in Pāli to use *avajja-* in its original sense of ‘sin’—only *vajja-* could be used in this meaning. In the old compounds *an-avadyá-* ‘without sin’, *nir-avadya-* ‘id.’, and *sa-avadya-* ‘with sin’, however, the initial *a-* of *avadyá-* was not susceptible to semantic reanalysis as it was preceded by a semantically transparent morpheme. Thus *avajja-* in Pā. *anavajja-*, *niravajja-*, and *sāvajja-* corresponds in meaning to its Sanskrit counterpart *avadya-*. Taking parallel forms from Vedic, Ardha-Māgadhī, and Buddhist Hybrid Sanskrit into consideration, I showed how the semantic reanalysis of *avajja-* occurred only in Pāli. Furthermore, I discussed the distribution of *vajja-* and *avajja-* in Pāli, showing that *avajja-* ‘non-sin’ occurs in the simplex only when it is contrasted with *vajja-*. Finally, I argued that this approach provides definitive support for the reading *avañjhā* ‘not without fruit’ in Theragāthā stanza 789.

Chapter Five, “The Particle *u* in Vedic: Function and Etymology”, offered a new perspective on the Vedic particle *u*. Various proposals have been made about the function and etymology of the Vedic enclitic particle *u*. Klein (1978, 1985, 1988) proposes that there was a historical development in the usage of *u* and that this development can be divided into two consecutive stages in which the particle had two distinct functions: (1) anaphoric and (2) conjunctive. For the etymology, Klein connects Vedic *u* with the Proto-Indo-European distal deictic particle **u*. Dunkel (1997) proposes

that Vedic *u* encompasses three functions—(1) conjunctive, (2) anaphoric, and (3) distal-deictic—the conjunctive and distal-deictic functions being equally old, and the anaphoric function representing an inner-Indic reinterpretation of the original conjunctive function.

Previous approaches to Vedic *u* have tended to overemphasize what kind of word serves as its host, using this as a basis for discerning the function of the particle. As it can be demonstrated that the particle has scope over its whole clause and not only the preceding word, approaches to Vedic *u* like Klein's which seek to determine the particle's function based on the element that precedes it are ill-founded. I argued that the enclitic particle *u* functions as a connector of clauses and that it is positioned in the syntax left-adjoined to its clause. However, clitics in Vedic must have a phonological host on their left. As *u* cannot surface *in situ*, the particle makes a minimal movement in the phonology to a position within its domain where it can be appropriately hosted (Hale 2007:204ff.). This cross-linguistically well-attested phenomenon is known as prosodic inversion (Halpern 1995).

Klein has argued that *u* in its conjunctive function is a coordinate conjunction. Important evidence was adduced to demonstrate that this is incorrect. Additional details on possible cognates in other Indo-European languages were discussed, and I concluded that the particle *u* in the Rigveda functions primarily as a connector of clauses, and these clauses can be both dependent and independent.

REFERENCES

- AiG II.2* = Albert Debrunner. 1954. *Altindische Grammatik. Band II.2: Die Nominalsuffixe von Albert Debrunner*. Göttingen: Vandenhoeck & Ruprecht.
- AiG III* = Jacob Wackernagel and Albert Debrunner. 1930. *Altindische Grammatik. Band III: Nominalflexion–Zahlwort–Pronomen von Albert Debrunner und Jacob Wackernagel*. Göttingen: Vandenhoeck & Ruprecht.
- AiW* = Christian Bartholomae. 1904. *Altiranisches Wörterbuch*. Strassburg: Trübner.
- ARNOLD, Edward. 1905. *Vedic Metre in its Historical Development*. Cambridge: Cambridge University.
- BARTHOLOMAE, Christian. 1894–5. I. Vorgeschichte der Iranischen Sprachen. II. Awestasprache und Altpersisch. [= *Grundriss der iranischen Philologie I* 1], Wilhelm Geiger and Ernst Kuhn, eds. Strassburg: Trübner.
- BEEKES, Robert. 1988. *A Grammar of Gatha-Avestan*. Leiden: Brill.
- BHSD* = Franklin Edgerton. 1953. *Buddhist Hybrid Sanskrit Dictionary*. New Haven: Yale University Press.
- BLOOMFIELD, Maurice. 1893. The Etymology of *uloka*. *Proceedings of the American Oriental Society*, April, xxxv–xxxviii.
- BODEWITZ, Henk. 2008. The Refrain *kásmai devāya havīṣā vidhema* (RV 10, 121). In Leonid Kulikov and Maxim Rusanov, eds., *Indologica: T. Ya. Elizarenkova Memorial Volume*, Book 1, 79–98. Moscow: Russian State University of the Humanities.
- BÖHTLINGK, Otto, ed. and transl. 1887. *Pāṇini's Grammatik. Herausgegeben, übersetzt, erläutert und mit verschiedenen Indices versehen von Otto Böhtlingk*. Leipzig: H. Hässel.
- BONIFAZI, Anna. 2009. The Pragmatic Meanings of Some Discourse Markers in Homer. In Elisabeth Rieken and Paul Widmer, eds., *Pragmatische Kategorien: Form, Funktion und Diachronie. Akten der Arbeitstagung der Indogermanischen Gesellschaft. Marburg, 24.–26. September 2007*, 29–36. Wiesbaden: Reichert.
- CARDONA, George. 2013. Developments of Nasals in Early Indo-Aryan: *anunāsika* and *anusvāra*.

Tokyo University Linguistic Papers 33, 3–81.

CCDPL = Amrit Ghatage, gen. ed. 1996–. *A Comprehensive and Critical Dictionary of the Prakrit Languages with Special Reference to Jain Literature*. Pune: Bhandarkar Oriental Research Institute.

CDIAL = Ralph Turner. 1966. *A Comparative Dictionary of the Indo-Aryan Languages*. London: Oxford University Press.

CHEUNG, Johnny. 2007. *Etymological Dictionary of the Iranian Verb*. Leiden: Brill.

CPD = Vilhelm Trenckner, Dines Andersen, Helmer Smith et al. 1924ff. *A Critical Pāli Dictionary*. Copenhagen: A.F. Høst, Munksgaard.

DELBRÜCK, Berthold. 1888. *Altindische Syntax* (Syntaktische Forschungen V). Halle (Saale): Verlag der Buchhandlung des Waisenhauses.

DERKSEN, Rick. 2008. *Etymological Dictionary of the Slavic Inherited Lexicon* (Leiden Indo-European Etymological Dictionary Series 4). Leiden: Brill.

DE VAAN, Michiel. 2003. *The Avestan Vowels* (Leiden Studies in Indo-European 12). Amsterdam: Rodopi.

DUNKEL, George. 1988. Laryngeals and Particles: **u*, **h₂u*, and **awo*. In Alfred Bammesberger, ed., *Die Laryngalthorie und die Rekonstruktion des indogermanischen Laut- und Formensystems*, 107–121. Heidelberg: Winter.

DUNKEL, George. 1997. Conjunctive *u* and Invariable *sá* in the Rgveda: Questions of Method (with a note on Greek dialectal *ōvu* and *ōve*). *Indogermanische Forschungen* 102, 156–178.

EDL = Michiel de Vaan. 2008. *Etymological Dictionary of Latin and the Other Italic Languages* (Leiden Indo-European Etymological Dictionary Series 7). Leiden: Brill.

EVP = Louis Renou. 1955–1969. *Études védiques et pāṇinéennes* (Publications de l'institut de civilisation indienne, Série in-8°). 17 vols. Paris: Boccard.

EWAIa = Manfred Mayrhofer. 1992–2001. *Etymologisches Wörterbuch des Altindoarischen*. 3 vols. Heidelberg: Winter.

GARCÍA-RAMÓN, José Luis. 2004. On Vedic Suppletion: *dāś* and *vidh*. In John Penney, ed.,

- Indo-European Perspectives: Studies in Honour of Anna Morpurgo Davies*, 487–513. Oxford: Oxford University.
- GELDNER, Karl. 1951a. *Der Rig-Veda. Erster Teil. Erster bis vierter Liederkreis*. Cambridge: Harvard University.
- GELDNER, Karl. 1951b. *Der Rig-Veda. Zweiter Teil. Fünfter bis achter Liederkreis*. Cambridge: Harvard University.
- GELDNER, Karl. 1951c. *Der Rig-Veda. Dritter Teil. Neunter bis zehnter Liederkreis*. Cambridge: Harvard University.
- GELDNER, Karl. 1882. *Studien zum Avesta. Erstes Heft*. Strassburg: Trübner.
- GELDNER, Karl. 1885. *ākāo*. *Zeitschrift für vergleichende Sprachforschung* 27, 577–588.
- GERSHEVITCH, Ilya. 1959 [repr. 1967]. *The Avestan Hymn to Mithra: With an Introduction, Translation, and Commentary*. Cambridge: Cambridge University.
- GHARIB, Badrolzaman. 1995. *Sogdian Dictionary: Sogdian-Persian-English*. Tehrān: Farhangān.
- GOTO, Toshifumi. 1987. *Die “I. Präsensklasse” im Vedischen: Untersuchung der vollstufigen thematischen Wurzelpräsentia*. Wien: Österreichische Akademie der Wissenschaften.
- Grassmann = Hermann Grassmann. 1873. *Wörterbuch zum Rig-Veda*. Leipzig¹ [= Wiesbaden⁴ 1964]. 6., überarbeitete und ergänzte Auflage von Maria Kozianka. Wiesbaden 1996: Harrassowitz.
- HALE, Mark. 1996. Deriving Wackernagel’s Law: Prosodic and Syntactic Factors Determining Clitic Placement in the Language of the Rigveda. In Aaron Halpern and Arnold Zwicky, eds., *Approaching Second: Second Position Clitics and Related Phenomena*, 165–197. Stanford, CA: CSLI.
- HALE, Mark. 2007. *Historical Linguistics: Theory and Method*. Malden, MA: Blackwell.
- HALPERN, Aaron. 1995. *On the Placement and Morphology of Clitics*. Stanford, CA: CSLI.
- HOFFMANN, Karl. 1967. *Der Injunktiv im Veda: Eine synchronische Funktionsuntersuchung*. Heidelberg: Winter.
- HOFFMANN, Karl. 1968. Zum Optativ des indogermanischen Wurzeläorists. In Johannes Heesterman, Godard Schokker, and Vadasery Subramoniam, eds., *Pratidānam: Indian, Iranian and Indo-European Studies Presented to Franciscus Bernardus Jacobus Kuiper on His Sixtieth*

- Birthday*, 3–8. The Hague: Mouton [= *Aufsätze zur Indoiranistik*, vol. I, 1975, 245–250. Wiesbaden: Reichert].
- HOFFMANN, Karl. 1969. Vedisch *vidh*, *vindh*. *Die Sprache* 15, 1–7 [= *Aufsätze zur Indoiranistik*, vol. I, 1975, 238–244. Wiesbaden: Reichert].
- HOFFMANN, Karl. 1975. Avest. *yecā*. *Acta Iranica. Hommages et opera minora. Monumentum H. S. Nyberg I*, 387–395. Leiden: Brill [= *Aufsätze zur Indoiranistik*, vol. II, 1976, 646–654. Wiesbaden: Reichert].
- HOFFMANN, Karl. 1976. Präteritaler Optativ im Altiranischen. *Aufsätze zur Indoiranistik*, vol. II, 605–619. Wiesbaden: Reichert
- HOFFMANN, Karl and FORSSMAN, Bernhard. 2004. *Avestische Laut- und Flexionslehre*, 2nd ed. Innsbruck: Institut für Sprachen und Literaturen der Universität Innsbruck.
- HUMBACH, Helmut. 1991. *The Gāthās of Zarathushtra and the Other Old Avestan Texts, Part I: Introduction — Text and Translation* (in collaboration with Josef Elfenbein and Prods Skjærvø). Heidelberg: Carl Winter.
- IEW = Julius Pokorny. 1959–1969. *Indogermanisches etymologisches Wörterbuch*. 2 vols. Bern: Francke.
- INSLER, Stanley. 1975. *The Gāthās of Zarathustra* (Acta Iranica 8). Tehran-Liège: Bibliothèque Pahlavi.
- JAMASPASA, Kaikhusroo and HUMBACH, Helmut. 1971. *Pursišnīhā: A Zoroastrian Catechism. Part I: Text, Translation, Notes*. Wiesbaden: Harrassowitz.
- JAMISON, Stephanie. 1999. Once More, Yet Again, the Vedic Type *dheyām* Revisited: Metrical Marginalia to a Persistent Problem. In Heiner Eichner and Hans Luschützky, eds., *Compositiones Indogermanicae in Memoriam Jochem Schindler*, 165–181. Prague: Enigma.
- JASANOFF, Jay. 1978. *Stative and Middle in Indo-European* (Innsbrucker Beiträge zur Sprachwissenschaft 23). Innsbruck: Institut für Sprachwissenschaft der Universität Innsbruck.
- JASANOFF, Jay. 1991. The Ablaut of the Root Aorist Optative in Proto-Indo-European. *Münchener Studien zur Sprachwissenschaft* 52, 101–122.

- JASANOFF, Jay. 2009. Notes on the Internal History of the PIE Optative. In Kazuhiko Yoshida and Brent Vine, eds., *East and West: Papers in Indo-European Studies*, 47–68. Bremen: Hempen.
- JASANOFF, Jay. 2012. *The Prehistory of the Thematic Aorist*. Etymology and the European Lexicon, 14th Fachtagung of the Indogermanische Gesellschaft, University of Copenhagen, 17–22 September, 2012. Handout.
- KELLENS, Jean. 1974. *Les noms-racines de l’Avesta*. Wiesbaden: Reichert.
- KELLENS, Jean and PIRART, Eric. 1990. *Les textes vieil-avestiques, Vol. II: Répertoires grammaticaux et lexique*. Wiesbaden: Reichert.
- KEWA = Manfred Mayrhofer. 1956–1980. *Kurzgefaßtes etymologisches Wörterbuch des Altindischen*. 4 vols. Heidelberg: Winter.
- KIPARSKY, Paul. 2005. The Vedic Injunctive: Historical and Synchronic Implications. In Rajendra Singh, ed., *The Yearbook of South Asian Languages and Linguistics*, 219–235. Berlin: de Gruyter.
- KLEIN, Jared. 1978a. *The Particle u in the Rigveda: A Synchronic and Diachronic Study*. Göttingen: Vandenhoeck & Ruprecht.
- KLEIN, Jared. 1978b. The System of Coordinate Conjunctions in the RigVeda. *Indo-Iranian Journal* 20, 1–23.
- KLEIN, Jared. 1985a. *Toward a Discourse Grammar of the Rigveda*, vol. I, part 1. Heidelberg: Winter.
- KLEIN, Jared. 1985b. *Toward a Discourse Grammar of the Rigveda*, vol. I, part 2. Heidelberg: Winter.
- KLEIN, Jared. 1988. Homeric Greek αὖ: A Synchronic, Diachronic, and Comparative Study. *Historische Sprachforschung* 101, 249–288.
- KLEIN, Jared and CONDON, Nancy. 1993. Gothic -(u)h: A Synchronic and Comparative Study. *Transactions of the Philological Society* 91:1, 1–62.
- KOBAYASHI, Masato. 2004. *Historical Phonology of Old Indo-Aryan Consonants* (Study of Languages and Cultures of Asia and Africa Monograph Series 42). Tokyo: Research Institute for Languages and Cultures of Asia and Africa, Tokyo University of Foreign Studies.
- KORTLANDT, Frederik. 1983. Greek Numerals and PIE Glottalic Consonants. *Münchener Studien zur Sprachwissenschaft* 42, 97–104.

- KOTWAL, Firoze and KREYENBROEK, Philip, eds. and transl. 2003. *The Hērbedestān and Nērangestān*, vol. 3, *Nērangestān, Fragard 2*. Studia Iranica, Cahier 30. Paris: Association pour l'avancement des études iranniennes.
- KROON, Caroline. 1995. *Discourse Particles in Latin: A Study of nam, enim, autem, vero, and at*. Amsterdam: Gieben.
- KÜMMEL, Martin. 2000. *Das Perfekt im Indoiranischen. Eine Untersuchung der Form und Funktion einer ererbten Kategorie des Verbums in den altindoiranischen Sprachen*. Wiesbaden: Reichert.
- LEW = Ernst Fraenkel. 1962–1965. *Litauisches etymologisches Wörterbuch*. Heidelberg: Winter.
- LIVSHITS, Vladimir. 2008. Согдийская эпиграфика Средней Азии и Семиречья. Санкт-Петербург: Филологический факультет Санкт-Петербургского гос. университета.
- LKŽ = *Lietuvių kalbos žodynas*. Vilnius: Lietuvių kalbos institutas. [online: <http://www.lkz.lt/>]
- LUBOTSKY, Alexander. 1993. Nasalization of the Final *ā* in the Ṛgveda. *Indo-Iranian Journal* 36, 197–210.
- LUBOTSKY, Alexander. 1994. RV. *ávidhat*. In George Dunkel, Gisela Meyer, Salvatore Scarlata, and Christian Seidl, eds., *Früh-, Mittel-, Spätindogermanisch, Akten der IX. Fachtagung der Indogermanischen Gesellschaft. Zürich, 5.–9. Oktober 1992*, 201–206. Wiesbaden: Reichert.
- LUBOTSKY, Alexander. 1995. Reflexes of Intervocalic Laryngeals in Sanskrit. In Wojciech Smoczyński, ed., *Analecta Indoeuropaea Cracoviensia, vol. II: Kuryłowicz Memorial Volume, pt. 1*, 213–233. Cracow: Universitas.
- LUBOTSKY, Alexander. 1997. *A Ṛgvedic Word Concordance*. 2 vols. New Haven, CT: American Oriental Society.
- MACKENZIE, David, ed. 1976. *The Buddhist Sogdian Texts of the British Library*. Leiden: Brill.
- MALZAHN, Melanie. 2010. *The Tocharian Verbal System* (Brill's Studies in Indo-European Languages and Linguistics 3). Leiden: Brill.
- MAYRHOFER, Manfred, ed. 1979. *Iranisches Personennamenbuch. Band I: Die altiranischen Namen*. Wien: Österreichischen Akademie der Wissenschaften.
- MELCHERT, Craig. 1978. Tocharian Verb Stems in *-tk-*. *Zeitschrift für vergleichende Sprachforschung*

- MELCHERT, Craig. 1981. 'God-drinking': A Syntactic Transformation in Hittite. *Journal of Indo-European Studies* 9, 245–254.
- MELCHERT, Craig. 1984. *Studies in Hittite Historical Phonology*. Vandenhoeck & Ruprecht.
- MELCHERT, Craig. 2009. Discourse Conditioned Use of Hittite *-ma*. In Elisabeth Rieken and Paul Widmer, eds., *Pragmatische Kategorien: Form, Funktion und Diachronie. Akten der Arbeitstagung der Indogermanischen Gesellschaft. Marburg, 24.–26. September 2007*, 187–195. Wiesbaden: Reichert.
- NARTEN, Johanna. 1986. *Der Yasna Haptanhāiti*. Wiesbaden: Reichert.
- NIL = Dagmar Wodtke, Britta Irslinger, and Carolin Schneider. 2008. *Nomina im indogermanischen Lexikon*. Heidelberg: Winter.
- VAN NOOTEN, Barend and HOLLAND, Gary, eds. 1994. *Rig Veda: A Metrically Restored Text with an Introduction and Notes* (Harvard Oriental Series 50). Cambridge: Harvard University Press.
- NUSSBAUM, Alan. 1976. *Caland's 'Law' and the Caland System*. Diss. Harvard.
- NUSSBAUM, Alan. 1986. *Head and Horn in Indo-European*. Berlin: de Gruyter.
- NUSSBAUM, Alan. 2004. Cool **-ēd-*: The Latin *frīgēdō* and Greek ἀλγιδών, τηκεδών, and ῥίγεδανός Types. Paper presented at the 23rd East Coast Indo-European Conference (Virginia Polytechnic Institute, Blacksburg, VA).
- NUSSBAUM, Alan. 2010. PIE *-Cmn-* and Greek *τῶνής* 'clear'. In Ronald Kim, Norbert Oettinger, Elisabeth Rieken, and Michael Weiss, eds., *Ex Anatolia Lux: Anatolian and Indo-European Studies in Honor of H. Craig Melchert on the Occasion of his Sixty-fifth Birthday*, 269–277. Ann Arbor: Beech Stave.
- OBERLIES, Thomas. 2001. *Pāli: A Grammar of the Language of the Theravāda Tipiṭaka*. Berlin: de Gruyter.
- OLDENBERG, Hermann. 1897. *Vedic Hymns: Part II: Hymns to Agni (Mandalas I-V)*. Max Müller, ed., *The Sacred Books of the East* 46. Oxford: Clarendon.
- OLDENBERG, Hermann. 1909. *Ṛgveda. Textkritische und exegetische Noten*. [I:] Erstes bis sechstes Buch. (Abhandlungen der Königlichen Gesellschaft der Wissenschaften zu Göttingen.

- Philologisch-Historische Klasse. Neue Folge: Band XI. Nro. 5). Berlin: Weidmannsche Buchhandlung.
- OLDENBERG, Hermann. 1912. *R̥gveda. Textkritische und exegetische Noten*. [II:] Siebentes bis zehntes Buch. (Abhandlungen der Königlichen Gesellschaft der Wissenschaften zu Göttingen. Philologisch-Historische Klasse. Neue Folge: Band XIII. Nro. 3). Berlin: Weidmannsche Buchhandlung.
- PED = Thomas Rhys Davids and William Stede, eds. 1921–1925. *Pali-English Dictionary*. London: Pali Text Society.
- PETERS, Martin. 1991. Idg. ‘9’ im Armenischen und Griechischen. *Zeitschrift für Sprachwissenschaft und Kommunikationsforschung* 3, 301–310.
- PISCHEL, Richard. 1900. *Grammatik der Prakrit-Sprachen*. Strassburg: Karl J. Trübner.
- PISCHEL, Richard and GELDNER, Karl. 1889–1901. *Vedische Studien*. 3 vols. Stuttgart: Kohlhammer.
- PW = Otto Böhtlingk and Rudolph Roth. 1855–1875. *Sanskrit-Wörterbuch*. 7 Bde. St. Petersburg: Kaiserliche Akademie der Wissenschaften.
- RASTORGUEVA, Vera and EDELMAN, Dzhoi. 2000. *Etymological Dictionary of the Iranian Languages*. Tome I: a–ā. Moscow: Vostochnaya Literatura.
- RAU, Jeremy. 2009. *Indo-European Nominal Morphology: The Decads and the Caland System*. Innsbruck: Institut für Sprachen und Literaturen der Universität Innsbruck.
- REICHELT, Hans. 1928. *Die soghdischen Handschriftenreste des Britischen Museums*. Teil I. Heidelberg: Winter.
- RENOU, Louis. 1939. L’ambiguité du vocabulaire du R̥gveda. *Journal Asiatique* 231, 161–235.
- SCARLATA, Salvatore. 1999. *Die Wurzelkomposita im R̥g-Veda*. Wiesbaden: Reichert.
- SCHINDLER, Jochem. 1980. Zur Herkunft der altindischen cvi-Bildungen. In Manfred Mayrhofer, Martin Peters, and Oskar Pfeiffer, eds., *Lautgeschichte und Etymologie. Akten der VI. Fachtagung der Indogermanischen Gesellschaft. Wien, 24.–29. September 1978*, 386–393. Wiesbaden: Reichert.
- SCHLERATH, Bernfried. 1968. *Awesta-Wörterbuch, Vorarbeiten II: Konkordanz*. Wiesbaden: Harrassowitz.
- SCHMIDT, Johannes. 1895. *Kritik der Sonantentheorie*. Weimar: Böhlau.

- SCHMITT, Rüdiger, ed. 1989. *Compendium Linguarum Iranicarum*. Wiesbaden: Reichert.
- SKJÆRVØ, Prods, transl. and ed. 2011. *The Spirit of Zoroastrianism*. New Haven: Yale University.
- STÜBER, Karin. 2002. *Die primären s-Stämme des Indogermanischen*. Wiesbaden: Reichert.
- THIEME, Paul. 1949. *Untersuchungen zur Wortkunde und Auslegung des Rigveda*. Halle (Saale): Niemeyer.
- THURNEYSEN, Rudolf. 1908. Altindisch *étavái*. *Mélanges de linguistique offerts à M. Ferdinand de Saussure*, 223–227. Paris: Champion.
- TICHY, Eva. 2000. *Indogermanistisches Grundwissen: für Studierende sprachwissenschaftlicher Disziplinen*. Bremen: Hempen.
- TRENCKNER, Vilhelm. 1908. Critical and Philological Notes to the First Chapter (Bāhirakathā) of the Milinda-pañha. *Journal of the Pali Text Society* 6, 102–151.
- TUCKER, Elizabeth. 2009. Old Iranian Superlatives in *-išta-*. In Werner Sundermann, Almut Hintze, and François de Blois, eds., *Exegisti monumenta: Festschrift in Honour of Nicholas Sims-Williams*, 509–526. Wiesbaden: Harrassowitz.
- UNTERMANN, Jürgen. 2000. *Wörterbuch des Oskisch-Umbrischen*. Heidelberg: Winter.
- VINE, Brent. 2006. An Alleged Case of ‘Inflectional Contamination’: On the *i*-stem Inflection of Latin *ciuis*. *Incontri Linguistici* 29, 139–158.
- VWC = Vishva Bandhu Śāstri, general ed. 1935–1992. *A Vedic Word-Concordance*. Vol. I. *Saṁhitās* (6 parts), Vol. II. *The Brāhmaṇas and the Āraṇyakas* (2 parts), Vol. III. *Upaniṣads* (2 parts), Vol. IV. *Vedāṅga-sūtras* (4 parts). Lahore: Vishveshvaranand Vedic Research Institute.
- WACKERNAGEL, Jacob. 1892. Über ein Gesetz der indogermanischen Wortstellung. *Indogermanische Forschungen* 1, 333–436.
- WATKINS, Calvert. 1995. *How to Kill a Dragon: Aspects of Indo-European Poetics*. Oxford: Oxford University.
- WEISS, Michael. 2009. *Outline of the Historical and Comparative Grammar of Latin*. Ann Arbor: Beech Stave.
- WERBA, Chlodwig. 1997. *Verba Indoarica: die primären und sekundären Wurzeln der*

Sanskrit-Sprache, Pars I: Radices Primariae. Wien: Verlag der Österreichischen Akademie der Wissenschaften.

WHITNEY, William. 1881. Index Verborum to the Published Text of the Atharva-Veda. *Journal of the American Oriental Society* 12, 1–383.

WHITNEY, William. 1905. *Atharva-veda Samhitā: Translated with a Critical and Exegetical Commentary* (Harvard Oriental Series 7–8), revised and edited by Charles Lanman. 2 vols. Cambridge: Harvard.

WITZEL, Michael and GOTŌ, Toshifumi. 2007. *Rig-Veda: das heilige Wissen. Erster und zweiter Liederkreis*. Aus dem vedischen Sanskrit übersetzt und herausgegeben von Michael Witzel und Toshifumi Gotō, unter Mitarbeit von Ejirō Dōyama und Mislav Ježić. Frankfurt am Main: Verlag der Weltreligionen.

YOSHIDA, Kazuhiko. 2012. The Loss of Intervocalic Laryngeals in Sanskrit and its Historical Implications. In Jared Klein and Kazuhiko Yoshida, eds., *Indic across the Millennia: from the Rigveda to Modern Indo-Aryan. 14th World Sanskrit Conference, Kyoto, Japan, September 1st–5th, 2009. Proceedings of the Linguistic Section*, 237–246. Bremen: Hempen.

YOSHIDA, Yutaka. 1996. The Sogdian Dhūta Text and its Chinese Original. *Bulletin of the Asia Institute, Studies in Honor of Vladimir A. Livshits*, vol. 10, 167–174.